DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
JANNEY'S LANE & TAYLOR RUN INTERSECTION IMPROVEMENTS

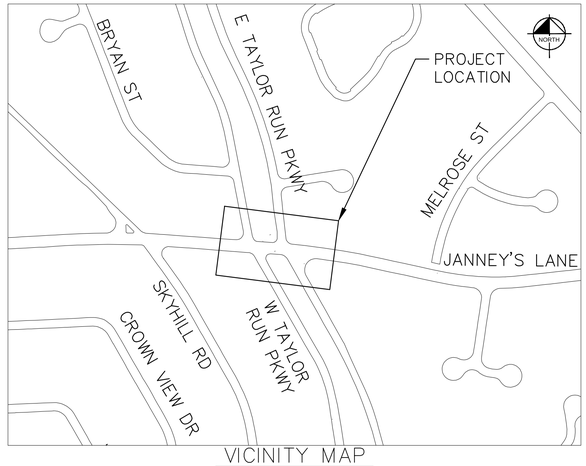
PREPARED FOR:

CITY OF ALEXANDRIA VIRGINIA

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE DESIGN OF INTERSECTION IMPROVEMENTS AT THE UNSIGNALIZED INTERSECTIONS OF JANNEY'S LANE AND W TAYLOR RUN PKWY AND JANNEY'S LANE AND E TAYLOR RUN PKWY. THE DESIGN INCLUDES REALIGNING THE INTERSECTION. THE PROJECT ALSO INCLUDES CONSTRUCTION OF NEW CURB RAMPS, STRIPED CROSSWALKS, NEW SIDEWALKS, NEW DRAINAGE INLETS, AND REPLACED DRAINAGE INLETS.

INDEX OF SHEETS:



VICINITY MAP
SCALE: 1" = 250'

MISS UTILITY OF VIRGINIA

CALL BEFORE YOU DIG
1.800.552.7001

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SVCS.
APPROVED X _____ DATE: _____ DIRECTOR
RECOMMENDED FOR APPROVAL X _____ DATE: _____ DEPUTY DIRECTOR OF OPERATIONS
RECOMMENDED FOR APPROVAL X _____ DATE: _____ DEPUTY DIRECTOR OF INFRASTRUCTURE & ENVIRONMENT
RECOMMENDED FOR APPROVAL X _____ DATE: _____ DEPUTY DIRECTOR OF TRANSPORTATION

No.	REVISIONS	DATE	BY

Kimley»Horn

11400 COMMERCE PARK DRIVE, SUITE 400, RESTON, VA 20191
PHONE: 703-674-1300 FAX: 703-674-1350
WWW.KIMLEY-HORN.COM

COMMONWEALTH OF VIRGINIA
KYLE T. BULLINGER
Lic. No. 051017
4/24/2015
PROFESSIONAL ENGINEER

KHA PROJECT 110104020
DATE 4/23/15
SCALE
DESIGNED BY: EJD
DRAWN BY: EJD
CHECKED BY: GDG

COVER SHEET

TAYLOR RUN/ JANNEY'S LANE

PREPARED FOR
CITY of ALEXANDRIA VIRGINIA

ALEXANDRIA

SHEET NUMBER
1

GENERAL PROJECT NOTES

1. THE CONTRACTOR MUST ENSURE THAT POSITIVE DRAINAGE OCCURS ON SITE TO PREVENT PONDING OR DRAINAGE PROBLEMS ON ADJACENT PROPERTIES.

2. ALL STORM DRAINS NOT SHOWN WITHIN AN EASEMENT OR IN A PUBLIC RIGHT OF WAY SHALL BE OWNED AND MAINTAINED PRIVATELY.

3. ALL SIDEWALKS SHALL REMAIN OPENED DURING CONSTRUCTION OR PEDESTRIAN ACCESS SHALL BE MAINTAINED TO THE SATISFACTION OF THE OWNER AND THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES THROUGHOUT THE CONSTRUCTION OF THE PROJECT.

4. THE APPLICANT SHALL COMPLY WITH THE CHESAPEAKE BAY PRESERVATION ACT IN ACCORDANCE WITH ARTICLE XIII OF THE CITY'S ZONING ORDINANCE, WHICH INCLUDE THE REQUIREMENTS FOR STORMWATER POLLUTANT LOAD REDUCTIONS, TREATMENT OF WATER QUALITY VOLUME DEFAULT, AND STORMWATER QUANTITY MANAGEMENT ACCORDING TO ALEXANDRIA SUPPLEMENT TO THE NORTHERN VIRGINIA BMP HANDBOOK.

5. ALL SANITARY SEWERS SHALL BE CONSTRUCTED TO THE CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS. MINIMUM DIAMETER OF SANITARY SEWERS SHALL BE 10" IN THE PUBLIC RIGHT-OF-WAY AND SANITARY LATERALS SHALL BE 6" FOR ALL COMMERCIAL AND INSTITUTIONAL DEVELOPMENTS; HOWEVER, A 4" SANITARY LATERAL WILL BE ACCEPTABLE FOR SINGLE FAMILY RESIDENCES. THE ACCEPTABLE PIPE MATERIALS WILL BE POLYVINYL CHLORIDE (PVC) ASTM D-3034-77 SDR 26, ASTM 1785-76 SCHEDULE 40, DUCTILE IRON PIPE AWWA C-151 (ANSI A21.51) CLASS 52, OR REINFORCED CONCRETE PIPE ASTM C-76 CLASS IV (FOR 12" OR LARGER DIAMETERS). CLASS III MAY BE ACCEPTABLE ON PRIVATE PROPERTIES. THE ACCEPTABLE MINIMUM AND MAXIMUM VELOCITIES WILL BE 2.5 FPS AND 10 FPS, RESPECTIVELY. LATERALS SHALL BE CONNECTED TO THE SANITARY SEWER THROUGH A MANUFACTURED "Y" OR "T" OR APPROVED SEWER SADDLE. WHERE THE LATERALS ARE BEING CONNECTED TO EXISTING TERRACOTA PIPES, REPLACE THE SECTION OF MAIN AND PROVIDE MANUFACTURED "Y" OR 'T', OR ELSE INSTALL A MANHOLE.

6. ALL STORM SEWERS SHALL BE CONSTRUCTED TO THE CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS. MINIMUM DIAMETER OF STORM SEWERS SHALL BE 18" IN THE PUBLIC RIGHT OF WAY AND MINIMUM SIZE STORM SEWER CATCH BASIN LEAD IS 15". THE ACCEPTABLE PIPE MATERIALS WILL BE AWWA C-151 (ANSI A21.51) CLASS 52 OR REINFORCED CONCRETE PIPE ASTM C-76 CLASS IV. THE ACCEPTABLE MINIMUM AND MAXIMUM VELOCITIES WILL BE 2.0 FPS AND 15 FPS, RESPECTIVELY.

7. LATERAL SEPARATION OF SEWERS AND WATER MAINS: A HORIZONTAL SEPARATION OF 10' (EDGE TO EDGE) SHALL BE PROVIDED BETWEEN A STORM AND SANITARY SEWER AND A WATER LINE; HOWEVER, IF THIS HORIZONTAL SEPARATION CANNOT BE ACHIEVED THEN THE SEWER AND WATER MAIN SHALL BE INSTALLED IN SEPARATE TRENCHES AND THE BOTTOM OF THE WATER MAIN SHALL BE AT LEAST 18" ABOVE OF THE TOP OF THE SANITARY/STORM SEWER. IF BOTH THE HORIZONTAL AND VERTICAL SEPARATIONS CANNOT BE ACHIEVED THEN THE SEWER PIPE MATERIAL SHALL BE DUCTILE IRON PIPE (DIP) AWWA C-151 (ANSI A21.51) CLASS 52 AND PRESSURE TESTED IN PLACE WITHOUT LEAKAGE PRIOR TO INSTALLATION.

8. CROSSING WATER MAIN OVER AND UNDER A SANITARY OR STORM SEWER: WHEN A WATER MAIN CROSSES OVER OR CROSSES UNDER A SANITARY/STORM SEWER THEN THE VERTICAL SEPARATION BETWEEN THE BOTTOM OF ONE (I.E., SANITARY / STORM SEWER OR WATER MAIN) TO THE TOP OF THE OTHER (WATER MAIN OR SANITARY/STORM SEWER) SHALL BE AT LEAST 18" FOR SANITARY SEWER AND 12" FOR STORM SEWER; HOWEVER, IF THIS CANNOT BE ACHIEVED THEN BOTH THE WATER MAIN AND SANITARY / STORM SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AWWA C-151 (ANSI 21.51) CLASS 52 WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING AND THE PIPES SHALL BE PRESSURE TESTED IN PLACE WITHOUT LEAKAGE PRIOR TO INSTALLATION. SANITARY SEWERS UNDER CREEKS AND STORM SEWER PIPE CROSSINGS WITH LESS THAN 6" CLEARANCE SHALL BE ENCASED IN CONCRETE.

9. NO WATER MAIN PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF SANITARY/STORM SEWER MANHOLE. MANHOLES SHALL BE PLACED AT LEAST 10 FEET HORIZONTALLY FROM THE WATER MAIN WHENEVER POSSIBLE. WHEN LOCAL CONDITIONS PROHIBIT THIS HORIZONTAL SEPARATION, THE MANHOLE SHALL BE WATERTIGHT CONSTRUCTION AND TESTED IN PLACE.

10. CROSSING EXISTING OR PROPOSED UTILITIES: UNDERGROUND TELEPHONE, CABLE T.V., GAS, AND ELECTRICAL DUCT BANKS SHALL BE CROSSED MAINTAINING A MINIMUM OF 12" OF SEPARATION OR CLEARANCE WITH WATER MAIN, SANITARY, OR STORM SEWERS. IF THIS SEPARATION CANNOT BE ACHIEVED THEN THE SEWER PIPE MATERIAL SHALL BE DUCTILE IRON PIPE (DIP) AWWA C-151 (ANSI A21.51) CLASS 52 FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING AND PRESSURE TESTED IN PLACE WITHOUT LEAKAGE PRIOR TO INSTALLATION. SANITARY/STORM SEWERS AND WATER MAIN CROSSING OVER THE UTILITIES SHALL HAVE ADEQUATE STRUCTURAL SUPPORT (PIER SUPPORT AND/OR CONCRETE ENCASEMENT) TO PREVENT DAMAGE TO THE UTILITIES.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR APPLY FOR ANY NEEDED VPDES PERMIT. THE CONTRACTOR SHALL SUBMIT A COPY OF ANY APPLICABLE VPDES PERMITS WITH THE CITY.

EROSION AND SEDIMENT CONTROL NOTES

1. AN EROSION AND SEDIMENT CONTROL PLAN MUST BE APPROVED BY THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES PRIOR TO ANY LAND DISTURBING ACTIVITY GREATER THAN 2,500 SQUARE FEET.

2. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE CITY OF ALEXANDRIA AND VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH) AND VIRGINIA REGULATIONS 4VAC50-30 SEDIMENT AND CONTROL REGULATIONS.

3. AN EROSION AND SEDIMENT CONTROL PLAN IS INCLUDED WITH THESE FINAL PLANS FOR APPROVAL BY THE DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES FOR REFERENCE BY THE EROSION AND SEDIMENT CONTROL PERMIT.

4. A "CERTIFIED LAND DISTURBER" (CLD) SHALL BE NAMED IN A LETTER TO THE DIVISION CHIEF OF CONSTRUCTION MANAGEMENT AND INSPECTION (CM&I), DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES PRIOR TO ANY LAND DISTURBING ACTIVITIES. IF THE CLD CHANGES DURING THE PROJECT, THAT CHANGE MUST BE NOTED IN A LETTER TO THE DIVISION CHIEF.

5. THE DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES, CONSTRUCTION MANAGEMENT AND INSPECTION (CM&I) DIVISION MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENTS OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION. THE RESPONSIBLE CERTIFIED LAND DISTURBER (CLD) SHALL ATTEND THE PRE-CONSTRUCTION CONFERENCE.

6. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED / CONSTRUCTED AS A FIRST STEP IN ANY LAND DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.

7. CONSTRUCTION SHALL BE SEQUENCED SUCH THAT GRADING OPERATION CAN BEGIN AND END AS QUICKLY AS POSSIBLE. AREAS NOT TO BE DISTURBED MUST BE CLEARLY MARKED OR FLAGGED.

8. AN INSPECTION BY THE CITY OF ALEXANDRIA IS REQUIRED AFTER INITIAL INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND BEFORE ANY CLEARING OR GRADING CAN BEGIN.

9. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

10. PRIOR TO COMMENCING ANY LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN THOSE INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE CITY OF ALEXANDRIA.

11. THE CONTRACTOR SHALL KEEP DENUDED AREAS TO A MINIMUM. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR. ANY STOCKPILED MATERIAL WHICH WILL REMAIN IN PLACE LONGER THAN 10 DAYS MUST BE SEEDED FOR TEMPORARY VEGETATION AND MULCHED WITH STRAW MULCH OR OTHERWISE STABILIZED.

EROSION AND SEDIMENT CONTROL NOTES (CONT'D)

12. ALL APPLICABLE EROSION AND SEDIMENT CONTROL MEASURES MUST BE EMPLOYED FOR STOCKPILE AREAS.

13. ALL TEMPORARY EARTH BERMS, DIVERSIONS AND SEDIMENT CONTROL DAMS SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED AS SOON AS POSSIBLE BUT NO LATER THAN 48 HOURS AFTER GRADING.

14. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.

15. DURING DEWATERING OPERATIONS, WATER SHALL BE PUMPED THROUGH AN APPROVED FILTERING DEVICE OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY IMPACT FLOWING STREAMS OR OFF-SITE PROPERTY.

16. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES DAILY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

17. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES AS NECESSARY TO PREVENT EROSION AND SEDIMENTATION AND AS DETERMINED BY THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES (T&ES) OF THE CITY OF ALEXANDRIA.

18. ANY DENUDED SLOPES, EITHER DISTURBED OR CREATED BY THIS PLAN THAT EXCEED 2500 SQUARE FEET ARE TO BE SODDED AND PEGGED FOR STABILITY AND EROSION CONTROL. AT THE COMPLETION OF THE PROJECT AND PRIOR TO THE RELEASE OF THE BOND, ALL DISTURBED AREAS SHALL BE STABILIZED PERMANENTLY AND ALL TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED.

19. ALL VEHICLES SHALL BE CLEANED BEFORE ENTERING THE PUBLIC RIGHT OF WAY TO PREVENT TRACKING OF SEDIMENT ON PUBLIC STREETS.

20. THE WASH WATER FROM THE CONSTRUCTION ENTRANCE SHALL BE FILTERED THROUGH THE PROVIDED SILT FENCE TO ENSURE THAT NO SEDIMENT LADEN RUNOFF IS ALLOWED TO RUNOFF ON TO THE ADJACENT PROPERTY OR THE PUBLIC RIGHT OF WAY.

21. INSTALL SILT FENCE AND TREE PROTECTION, WHERE APPLICABLE. TO THE EXTENT POSSIBLE ALL TREE PROTECTION SHALL BE INSTALLED AT THE DRIP LINE OF THE TREE(S).

22. DUST CONTROL SHALL BE ACCOMPLISHED BY TEMPORARY VEGETATIVE COVER AND BY IRRIGATION AS NEEDED.

SEQUENCE OF CONSTRUCTION FOR INSTALLATION EROSION AND SEDIMENT CONTROL NOTES

1. CONTRACTOR SHALL REFERENCE EROSION CONTROL PLANS FOR SEQUENCE OF INSTALLATION AND REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT ALL PHASES OF CONSTRUCTION.

2. INSTALL PERIMETER EROSION AND SEDIMENT CONTROLS; AND STABILIZE CONSTRUCTION ENTRANCE AS SHOWN ON THIS PLAN.

3. ALL VEGETATION PRESERVATION AND PROTECTION METHODS SHALL BE APPROVED/VERIFIED IN FIELD BY THE CITY ARBORIST PRIOR TO COMMENCEMENT OF ANY GROUND DISTURBING ACTIVITY.

4. INSTALL INLET PROTECTION AT EXISTING STORM DRAIN INLETS AS NECESSARY AND AS SHOWN ON THIS PLAN.

5. INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL PRACTICES AS NECESSARY AND AS DIRECTED BY THE EROSION AND SEDIMENT CONTROL INSPECTOR.

6. CONDUCT DEMOLITION AND CONSTRUCTION ACTIVITIES ACCORDING TO THE APPLICABLE PLANS.

7. AS CONTRIBUTING DRAINAGE AREAS ARE STABILIZED AND WITH THE PERMISSION OF THE EROSION AND SEDIMENT CONTROL INSPECTOR, REMOVE INDIVIDUAL EROSION AND SEDIMENT CONTROL PRACTICES.

8. UPON COMPLETION OF DEMOLITION, CONSTRUCTION AND LAND DISTURBING ACTIVITIES; PROVIDE PERMANENT STABILIZATION ACCORDING TO APPROVED METHODS AND REMOVE ALL REMAINING EROSION AND SEDIMENT CONTROL MEASURES WITH THE APPROVAL OF THE EROSION AND SEDIMENT CONTROL INSPECTOR.

UTILITY WORKS NOTES

1. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING MINIMUM STANDARDS DESCRIBED IN SECTION 4VAC50-30-40 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH) AND ADDITIONAL APPLICABLE PRACTICES FOLLOWED BY THE CITY OF ALEXANDRIA:

   A. ALL PRIVATE UTILITIES SHALL BE LOCATED OUTSIDE OF THE PUBLIC RIGHT OF WAY AND PUBLIC UTILITY EASEMENTS UNLESS THE UTILITY OWNERS HAVE A FRANCHISE AGREEMENT WITH THE CITY OF ALEXANDRIA; HOWEVER, NO ELECTRIC TRANSFORMERS AND SWITCH GEARS/CONTROL BOXES SHALL BE PLACED IN THE PUBLIC RIGHT OF WAY.

   B. ALL THE EXISTING AND PROPOSED PUBLIC AND PRIVATE UTILITIES AND EASEMENTS SHALL BE SHOWN AND A DESCRIPTIVE NARRATION OF VARIOUS UTILITIES SHALL BE PROVIDED ON THE PLAN.

   C. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN UTILITY SERVICES AT ALL TIMES DURING CONNECTION AND/OR CONSTRUCTION.

   D. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.

   E. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.

   F. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.

   G. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ACCORDANCE WITH THE CITY OF ALEXANDRIA STANDARDS AND SPECIFICATIONS TO MINIMIZE EROSION AND PROMOTE STABILIZATION.

   H. SHOULD UTILITY CONSTRUCTION BE PERFORMED AFTER COMPLETING EARTHWORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACHIEVING 98 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1551) COMPACTION IN ALL TRENCH BACKFILL.

   I. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE VIRGINIA REGULATIONS 4VA50-30 EROSION AND SEDIMENT CONTROL REGULATIONS, VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH).

   J. APPLICABLE SAFETY REGULATIONS SHALL BE COMPILED WITH.

   K. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL CONTROL MEASURES AS NECESSARY TO PREVENT EROSION AND SEDIMENTATION, AS DETERMINED BY THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES, CITY OF ALEXANDRIA.

   L. A REMEDIATION PLAN SHALL BE SUBMITTED DETAILING HOW CONTAMINATED SOILS AND/OR GROUNDWATER WILL BE DEALT WITH, INCLUDING PLANS TO REMEDIATE UTILITY CORRIDORS.

   M. UTILITY CORRIDORS IN CONTAMINATED SOIL SHALL BE OVER EXCAVATED BY 2 FEET AND BACKFILLED WITH "CLEAN" SOIL.

UTILITY WORKS NOTES (CONT'D)

N. GRADING CAN BE PERFORMED ON INSTALLATION OF UTILITIES.

O. ALL NEW INSTALLATIONS AND/OR REINSTALLATION OF UTILITIES SUCH AS ELECTRICAL LINES, GAS PIPES, COMMUNICATION CABLES INCLUDING WATER AND SEWER LATERALS BOTH ON PRIVATE PROPERTY AND IN THE PUBLIC RIGHT OF WAY IN THE CITY OF ALEXANDRIA SHALL BE PROVIDED WITH 3" AND 6" WIDE 5 MIL OVERALL THICKNESS DETECTABLE UNDERGROUND WARNING TAPES (DUWT). THE DUWT SHALL BE WITH ALUMINUM BACKING OR SOLID ALUMINUM CORE LAMINATED WITH A PROTECTIVE CLEAR FILM ON BOTH SIDES, SEALING AND PROTECTING THE GRAPHICS FROM THE UNDERGROUND MOISTURE, ACIDS, ALKALIS, AND OTHER SOIL SUBSTANCES. ALL DUWT TAPES SHALL BE PRINTED IN BLACK INK ON AMERICAN PUBLIC WORKS ASSOCIATION (APWA) APPROVED COLORS TO MEET OR EXCEED INDUSTRY STANDARDS. THE FOLLOWING ARE THE APWA COLOR CODES:

COLOR	CODES
RED	CAUTION BURIED ELECTRIC POWER LINES, CABLES CONDUITS, AND LIGHTING CABLES
YELLOW	CAUTION GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS
ORANGE	CAUTION COMMUNICATIONS, ALARM OR SIGNAL LINES, CABLES OR CONDUITS
BLUE	CAUTION POTABLE WATER
PURPLE	CAUTION RECLAIMED WATER, IRRIGATION AND SLURRY LINES
GREEN	CAUTION SEWER, DRAIN LINES, AND FORCE MAIN

DEMOLITION NOTES

1. A SEPARATE PERMIT IS REQUIRED FOR DEMOLITION; HOWEVER, NO DEMOLITION SHALL BEGIN UNTIL ALL EROSION AND SEDIMENT AND TREE PROTECTION CONTROLS ARE IN PLACE AND ARE APPROVED BY AN EROSION AND SEDIMENT CONTROL INSPECTOR OF THE DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES.

2. ALL NON-FERROUS WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE MOST CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS, INCLUDING BUT NOT LIMITED, TO ENVIRONMENTAL PROTECTION AGENCY (EPA), OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), VIRGINIA OCCUPATIONAL AND SAFETY HEALTH COMPLIANCE PROGRAM (VOSH ENFORCEMENT), VIRGINIA OVERHEAD HIGH VOLTAGE LINE SAFETY ACT, NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS), AND NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH (NIOSH).

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK WITH REPRESENTATIVE UTILITY COMPANIES AND FOR THE IMPLEMENTATION OF REQUIRED UTILITY-RELATED WORK.

4. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE UPON ENCOUNTERING ANY HAZARDOUS MATERIALS DURING DEMOLITION AND/OR CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL DOCUMENT THE SAME TO THE OWNER'S REPRESENTATIVE AND OBTAIN DIRECTION AS TO THE APPROPRIATE ACTION(S) TO BE TAKEN.

5. DISCONNECTION OF SERVICES AND SYSTEMS SUPPLYING UTILITIES TO BE ABANDONED OR DEMOLISHED SHALL BE COMPLETED PRIOR TO OTHER SITE DEMOLITION IN FULL COMPLIANCE WITH APPLICABLE CODS, REGULATIONS, AND THE REQUIREMENTS OF THE UTILITY HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE UTILITY, PAYMENT OF ASSOCIATED FEES AND PROCUREMENT OF ALL NECESSARY PERMITS.

6. PRIOR TO REMOVAL OF MATERIALS OVER EXISTING UTILITY SYSTEMS, THE CONTRACTOR SHALL DOCUMENT EXISTING CONDITIONS AND, IF DIFFERENT FROM CONDITIONS AS REPRESENTED ON THE PLANS, NOTIFY THE OWNER'S REPRESENTATIVE AND OBTAIN DIRECTIONS AS TO THE APPROPRIATE ACTION(S) TO BE TAKEN.

7. THE CONTRACTOR SHALL BACKFILL EXCAVATED AREAS WITH APPROVED MATERIALS/CLEAN FILL AS PER THE REQUIREMENTS OF VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) STANDARD DETAIL PB-1.

8. THE CONTRACTOR SHALL PROTECT AND PREVENT DAMAGE TO EXISTING ON-SITE UTILITY DISTRIBUTION FACILITIES THAT ARE TO REMAIN. ACTIVE UTILITY DISTRIBUTION FACILITIES ENCOUNTERED DURING DEMOLITION AND/OR CONSTRUCTION ACTIVITIES SHALL BE SHUT OFF AT THE SERVICE MAIN WITH THE APPROVAL OF THE OWNER'S REPRESENTATIVE.

9. DURING DEMOLITION AND/OR CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE UPON ENCOUNTERING ANY EXISTING UTILITIES AND/OR UTILITY SYSTEM STRUCTURES NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL DOCUMENT THE SAME AND FORWARD THE INFORMATION TO THE RESIDENT ENGINEER / OWNER'S REPRESENTATIVE, AND OBTAIN DIRECTION AS TO THE APPROPRIATE ACTION(S) TO BE TAKEN.

10. THE CONTRACTOR OR APPLICANT SHALL WORK WITH THE CITY STAFF TO REUSE THE EXISTING, LEFTOVER, UNUSED AND/OR DISCARDED MATERIALS AS PART OF THE DEMOLITION PROCESS. CONSTRUCTION DEBRIS, INCLUDING DISCARDED MATERIALS GENERATED DURING THE DEMOLITION PROCESS, MUST BE REMOVED BY THE CONTRACTOR TO AN APPROVED LANDFILL WITH ADEQUATE FREQUENCY IN ACCORDANCE WITH THE VIRGINIA STATE LITTER CONTROL ACT.

LANDSCAPE NOTES

1. ALL PROTECTION AND PRESERVATION MEASURES FOR EXISTING VEGETATION, INCLUDING MAINTENANCE SHALL BE APPROVED BY THE CITY ARBORIST IN-FIELD PRIOR TO COMMENCEMENT OF ANY SITE DISTURBING ACTIVITY.

2. SPECIFICATION FOR ALL PLANTINGS SHALL BE IN ACCORDANCE WITH THE CURRENT AND MOST UP TO DATE EDITION OF ANSI-Z60.1, THE AMERICAN STANDARD FOR NURSERY STOCK AS PRODUCED BY THE AMERICAN ASSOCIATION OF NURSERYMEN; WASHINGTON, DC.

3. THE APPLICANT HAS MADE SUITABLE ARRANGEMENTS FOR PRE-SELECTION TAGGING, PRE-CONTRACT GROWING, OR IS UNDERTAKING SPECIALIZED PLANTING STOCK DEVELOPMENT WITH A NURSERY OR GROWER THAT IS CONVENIENTLY LOCATED TO THE PROJECT SITE, OTHER PROCEDURES THAT WILL ENSURE AVAILABILITY OF SPECIFIED MATERIALS. IN THE EVENT THAT SHORTAGES AND/OR INABILITY TO OBTAIN SPECIFIED PLANTINGS OCCURS, REMEDIAL EFFORTS INCLUDING SPECIES CHANGES, ADDITIONAL PLANTINGS AND MODIFICATION TO THE LANDSCAPE PLAN SHALL BE UNDERTAKEN BY THE APPLICANT. ALL REMEDIAL EFFORTS SHALL, WITH PRIOR APPROVAL BY THE CITY, BE PERFORMED TO THE SATISFACTION OF THE DIRECTORS OF PLANNING AND ZONING, RECREATION, PARKS AND CULTURAL ACTIVITIES AND TRANSPORTATION AND ENVIRONMENTAL SERVICES.

4. IN LIEU OF MORE STRENUOUS SPECIFICATIONS, ALL LANDSCAPE RELATED WORK SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE CURRENT AND MOST UP-TO-DATE EDITION (AT ANY TIME OF CONSTRUCTION) OF LANDSCAPE SPECIFICATION GUIDELINES AS PRODUCED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF MARYLAND, DISTRICT OF COLUMBIA, AND VIRGINIA; GAITHERSBURG MARYLAND.

5. PRIOR TO COMMENCEMENT OF LANDSCAPE INSTALLATION/PLANTING OPERATION, A PRE-INSTALLATION/CONSTRUCTION MEETING WITH BE SCHEDULED WITH THE CITY'S ARBORIST AND LANDSCAPE ARCHITECTS TO REVIEW THE SCOPE OF INSTALLATION PROCEDURES AND PROCESSES.

6. MAINTENANCE FOR THIS PROJECT SHALL BE PERFORMED IN PERPETUITY, IN COMPLIANCE WITH THE CITY OF ALEXANDRIA LANDSCAPE GUIDELINES AND/OR AS CONDITIONED BY PROJECT APPROVAL.

7. A CERTIFICATION LETTER FOR TREE WELLS, TREE TRENCHES AND PLANTING ABOVE STRUCTURE SHALL BE PROVIDED BY THE PROJECT'S LANDSCAPE ARCHITECT. THE LETTER SHALL CERTIFY THAT ALL BELOW GRADE CONSTRUCTION IS IN COMPLIANCE WITH APPROVED DRAWINGS AND SPECIFICATIONS. THE LETTER SHALL BE SUBMITTED TO THE CITY ARBORIST AND APPROVED PRIOR TO APPROVAL OF THE LAST AND FINAL CERTIFICATE OF OCCUPANCY FOR THE PROJECT. THE LETTER SHALL BE SUBMITTED BY THE OWNER/APPLICANT/SUCCESSOR AND SEALED AND DATED AS APPROVED BY THE PROJECT'S LANDSCAPE ARCHITECT.

8. AS-BUILT DRAWINGS FOR THIS LANDSCAPE AND/OR IRRIGATION/WATER MANAGEMENT SYSTEM WILL BE PROVIDED IN COMPLIANCE WITH CITY OF ALEXANDRIA LANDSCAPE GUIDELINES. AS-BUILT DRAWINGS SHALL INCLUDE CLEAR IDENTIFICATION OF ALL VARIATION(S) AND CHANGES FROM APPROVED DRAWINGS INCLUDING LOCATION, QUANTITY, AND SPECIFICATION OF ALL PROJECT ELEMENTS.

9. MAINTENANCE OF ALL TREES AND LANDSCAPE MATERIALS SHALL CONFORM TO ACCEPTED INDUSTRY STANDARD SET FORTH BY THE LANDSCAPE CONTRACTORS ASSOCIATION, AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS, THE INTERNATIONAL SOCIETY OF ARBORICULTURE, AND THE AMERICAN NATIONAL STANDARDS INSTITUTE.

NO.	REVISIONS	DATE	BY

Kimley»Horn
© 2015 KIMLEY-HORN AND ASSOCIATES, INC.
11400 COMMERCE PARK DRIVE, SUITE 400, RESTON, VA 20191
PHONE: 703-674-1300 FAX: 703-674-1350
WWW.KIMLEY-HORN.COM

COMMONWEALTH OF VIRGINIA
KYLE T. BULLINGER
Lic. No. 051017
4/24/2015
PROFESSIONAL ENGINEER

KHA PROJECT 110104020
DATE 4/23/15
SCALE
DESIGNED BY: EJD
DRAWN BY: EJD
CHECKED BY: GDG

GENERAL NOTES

TAYLOR RUN/ JANNEY'S LANE
PREPARED FOR
CITY of ALEXANDRIA
VIRGINIA
ALEXANDRIA

SHEET NUMBER
2

CONSTRUCTION NOTES

1. THE EXISTING UNDERGROUND UTILITIES SHOWN HEREIN ARE BASED UPON AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK AND FOR ANY DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UNDERGROUND UTILITIES. IF DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHOULD ENCOUNTER UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS, HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND TAKE NECESSARY AND PROPER STEPS TO PROTECT THE FACILITY AND ASSURE THE CONTINUANCE OF SERVICE.
2. THE CONTRACTOR SHALL DIG TEST PITS FOLLOWING NOTIFICATION AND MARKING OF ALL EXISTING UTILITIES TO VERIFY THE LOCATION AND DEPTH OF EXISTING UTILITIES TEST HOLES TO BE PERFORMED AT LEAST 30 DAYS PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES ARE TO BE REPORTED IMMEDIATELY TO THE OWNER AND ENGINEER. REDESIGN AND APPROVAL BY REVIEWING AGENCY SHALL BE OBTAINED IF REQUIRED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OWNER AND THE ENGINEER OF ANY CHANGES OR CONDITIONS ATTACHED TO PERMITS OBTAINED FROM ANY AUTHORITY ISSUING PERMITS.
4. THE CONTRACTOR SHALL VISIT THE SITE AND SHALL VERIFY EXISTING CONDITIONS PRIOR TO STARTING CONSTRUCTION.
5. THE CONTRACTOR SHALL CLEAR THE SITE OF ALL TREES, BUILDINGS, FOUNDATIONS, ETC., WITHIN THE LIMITS OF CONSTRUCTION UNLESS OTHERWISE SPECIFIED, AND SHALL BE RESPONSIBLE FOR ENSURING THAT EXISTING UTILITIES ARE DISCONNECTED.
6. ALL AREAS, ON OR OFF-SITE, WHICH ARE DISTURBED BY THIS CONSTRUCTION AND WHICH ARE NOT PAVED OR BUILT UPON, SHALL BE ADEQUATELY STABILIZED TO CONTROL EROSION AND SEDIMENTATION. THE MINIMUM ACCEPTABLE STABILIZATION SHALL CONSIST OF PERMANENT GRASS, SEED MIXTURE TO BE AS RECOMMENDED BY THE CITY AGENT. ALL SLOPES 3:1 AND GREATER SHALL BE SODDED AND PEGGED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE CITY OF ALEXANDRIA.
7. ALL ABOVE GROUND UTILITIES SERVING THE SITE SHALL BE RELOCATED AS REQUIRED BY THE OWNING UTILITY COMPANIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL ARRANGEMENTS AND COORDINATING ALL WORK REQUIRED FOR THE NECESSARY RELOCATIONS.
8. PRIOR TO BEGINNING OF CONSTRUCTION, CONTRACTOR SHALL VERIFY FROM THE ARCHITECTURAL DRAWINGS ALL DIMENSIONS, DETAILS, AND TREATMENTS FOR THE PROPOSED BUILDINGS, WALKWAYS, AND OTHER PROPOSED CONSTRUCTION WHERE INDICATED ON THE PLANS.
9. THE CONTRACTOR SHALL VERIFY INVERT SIZE AND LOCATION OF BUILDING UTILITY CONNECTIONS PRIOR TO PLACEMENT OF UNDERGROUND UTILITIES.
10. EXISTING BUILDING, FENCES, AND OTHER EXISTING PHYSICAL FEATURES ARE TO BE REMOVED AS REQUIRED BY THE CONTRACTOR.
11. EXISTING CONSTRUCTION SHALL BE REMOVED TO NEAREST JOINT. NEW CONSTRUCTION SHALL BE PROVIDED AS SHOWN AND ANY DAMAGED AREA SHALL BE REPAIRED TO MATCH CONDITIONS EXISTING PRIOR TO CONSTRUCTION OR TO THE SATISFACTION OF DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES.
12. ALL PRIVATE BUILDING CONNECTIONS ARE TO BE INSTALLED IN ACCORDANCE WITH THE CURRENT PLUMBING CODE.
13. TOPS OF EXISTING STRUCTURES WHICH REMAIN IN USE ARE TO BE ADJUSTED IN ACCORDANCE WITH THE GRADING PLAN. ALL PROPOSED STRUCTURE TOP ELEVATIONS ARE TO BE VERIFIED BY THE CONTRACTOR WITH THE SITE GRADING PLANS. IN CASE OF CONFLICT, THE GRADING PLAN SHALL SUPERSEDE PROFILE ELEVATIONS. MINOR ADJUSTMENT TO MEET FINISHED GRADE ELEVATION, IF REQUIRED, SHALL BE MADE IN THE FIELD WITH THE APPROVAL OF SITE INSPECTOR OF THE DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES.
14. THE CONSTRUCTION, FIELD PRACTICES AND METHODS SHALL CONFORM TO THE REQUIREMENTS SET FORTH BY THE CITY OF ALEXANDRIA AND ITS CURRENT ZONING ORDINANCE AND CONSTRUCTION STANDARDS MANUAL. FAILURE TO COMPLY WITH THE CODE, APPLICABLE MANUALS, AND PROVISIONS OF THE CONSTRUCTION AND ESCROW AGREEMENTS OR THE PERMITS SHALL BE DEEMED A VIOLATION.
15. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE OWNER/DEVELOPER OR HIS AGENT OF ANY LEGAL RESPONSIBILITIES WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA OR ANY ORDINANCE ENACTED BY THE CITY OF ALEXANDRIA.
16. CONSTRUCTION STAKEOUT SHALL BE UNDER THE DIRECT SUPERVISION OF A LICENSED LAND SURVEYOR IN THE COMMONWEALTH OF VIRGINIA.
17. THE CONTRACTOR IS REFERRED TO STRUCTURAL, GEOTECHNICAL, MECHANICAL, AND ARCHITECTURAL PLANS FOR FOUNDATION TREATMENT INCLUDING, BUT NOT LIMITED TO, SHEETING AND SHORING FOR BUILDING EXCAVATION, WATERPROOFING FOR FILL AGAINST BUILDINGS, LOCATION OF MECHANICAL EQUIPMENT, AND CONNECTIONS THE FACES OF BUILDINGS.
18. SMOOTH GRADE SHALL BE MAINTAINED FROM THE CENTERLINE OF THE EXISTING ROAD TO THE PROPOSED ENTRANCE AND/OR CURB & GUTTER TO PRECLUDE THE FORMING OF FALSE GUTTER AND/OR PONDING OF WATER ON THE ROADWAY.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING A SMOOTH TRANSITION TO EXISTING CURB AND SIDEWALKS, IF APPLICABLE.
20. THE CALIFORNIA BEARING RATIO (CBR) VALUES ON IN-SITU MATERIALS SHALL BE DETERMINED BY FIELD AND/OR LABORATORY TESTS FOR ACTUAL DETERMINATION OF REQUIRED THICKNESS OF SURFACE, BASE, SUB-BASE, AND SUB GRADE MATERIALS. THE PAVEMENT SECTION SHALL BE DESIGNED BY A GEOTECHNICAL/LICENSED PROFESSIONAL ENGINEER TO THE SATISFACTION OF DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES FOR ALL PAVEMENTS INCLUDING EMERGENCY VEHICLE EASEMENT(EVE) TO SUPPORT H-20 LOADING. IN THE CASE OF PAVEMENT PATCHES, PAVEMENT SECTION MUST MEET OR EXCEED EXISTING SECTION.
21. EMERGENCY VEHICLE EASEMENTS (EVE) AND AMERICAN WITH DISABILITY (ADA) ACCESSIBLE PARKING SPACES MUST BE DELINEATED WITH PAVEMENT MARKINGS PER THE CITY OF ALEXANDRIA STANDARD SIGNAGE AND AMERICAN WITH DISABILITIES (ADA) REQUIREMENTS.
22. ALL STRIPING SHALL MEET THE REQUIREMENTS OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS (LATEST EDITION) AND SHALL BE THERMOPLASTIC UNLESS OTHERWISE SPECIFIED.
23. ALL EARTHWORK OPERATIONS ARE TO BE PERFORMED UNDER THE FULL TIME, ON-SITE SUPERVISION OF A REGISTERED GEOTECHNICAL ENGINEER WITH GEOTECHNICAL TESTING IN ACCORDANCE WITH CONSTRUCTION SPECIFICATIONS AND SOILS REPORT REQUIREMENTS.
24. THE CONTRACTORS SHALL NOT CAUSE OR PERMIT VEHICLES TO IDLE FOR MORE THAN 10 MINUTES WHEN PARKED.
25. DAMAGE TO ANY EXISTING ENTRANCES, CURB AND GUTTER, PAVEMENT OR OTHER EXISTING STRUCTURES NOT PROPOSED TO BE DISTURBED WITH THIS DEVELOPMENT, WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE REPAIRED TO THE SATISFACTION OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION AND ANY ADJOINING OWNERS THAT MAY BE AFFECTED.
26. ALL CONSTRUCTION ACTIVITES SHALL CONFORM WITH LATEST EDITION OF OSHA REGULATIONS AND GUIDELINES.
27. IN THE EVENT THE PROPOSED DRAINAGE SYSTEM ADVERSELY IMPACTS AND/OR CREATES A NUISANCE ON THE PUBLIC OR PRIVATE PROPERTIES THEN THE APPLICANT SHALL BE RESPONSIBLE TO PROVIDE ADDITIONAL IMPROVEMENTS TO THE FIELD DRAINAGE SYSTEM AND/OR SUMP PUMP DISCHARGE TO THE SATISFACTION OF THE DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES (T&ES).
28. ALL GEOTECHNICAL AND CONCRETE TESTING AND INPECTIONS SHALL BE PROVIDED BY A CITY APPROVED, THIRD PARTY CONSULTANT. FEES FOR ALL THIRD PARTY CONSULTANT TESTING AND INSPECTIONS SHALL BE PAID BY THE CONTRACTOR AND INCLUDED IN THE CONTRACTOR'S BASE BID.
29. ALL COORDINATION WITH APPLICABLE PUBLIC UTILITIES INCLUDING BUT NOT LIMITED TO TIMING OF SERVICE DROPS, RECONNECTIONS, LOAD LETTERS, PRESSURE TESTS AND PERMITS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL SUCH WORK SHALL BE SCHEDULED AND PERFORMED IN A MANNER TIMELY TO COMPLETION OF THE PROJECT.

RESOURCE PROTECTION AREA NOTE

1. THE SUBJECT PROPERTY IS LOCATED WITHIN A CITY OF ALEXANDRIA RESOURCE PROTECTION AREA (RPA).

FLOODPLAIN NOTE

1. THE SUBJECT PROPERTY IS LOCATED WITHIN A 100-YEAR FLOOD PLAIN WATER SURFACE ELEVATION (WSE).

CEMETERY AND/OR BURIAL GROUNDS NOTE

1. THERE IS NO OBSERVABLE, HISTORICAL, OR ARCHAEOLOGICAL EVIDENCE OF CEMETERIES OR BURIAL GROUNDS ON THIS PROPERTY.

RODENT ABATEMENT NOTE

1. PRIOR TO THE ISSUANCE OF A DEMOLITION PERMIT A RODENT ABATEMENT PLAN SHALL BE SUBMITTED TO THE CITY OF ALEXANDRIA CODE ADMINISTRATION THAT WILL OUTLINE STEPS THAT WILL BE TAKEN TO PREVENT THE SPREAD OF RODENTS FROM THE CONSTRUCTION SITE TO THE SURROUNDING COMMUNITY AND SEWERS. THE CONTRACTOR CAN CONTACT THE ALEXANDRIA DEPARTMENT OF CODE ADMINISTRATION AT 703-746-4200 FOR ANY QUESTIONS OR ADDITIONAL INFORMATION. PLEASE BE ADVISED ONCE ANY DEMOLITION HAS BEEN COMPLETED ANY ABOVE GROUND BAIT BOXES MUST BE RELOCATED TO WITHIN 50 FEET OF A STRUCTURE IN KEEPING WITH EPA REGULATIONS. IF THIS IS NOT POSSIBLE, THEY SHALL BE REMOVED AND REGULAR INSPECTIONS OF THE SITED CONDUCTED BY A VIRGINIA LICENSED PEST EXTERMINATOR TO ENSURE THE SITE REMAINS RODENT FREE.
2. ALL NEW DAYLIGHTED DRAINAGE PIPE SHALL BE CONSTRUCTED WITH RODENT SCREENS.

ARCHAEOLOGY NOTE

1. ALL REQUIRED ARCHAEOLOGICAL PRESERVATION MEASURES SHALL BE COMPLETED PRIOR TO GROUND-DISTURBING ACTIVITIES (SUCH AS CORING, GRADING, FILLING, VEGETATION REMOVAL, UNDERGROUNDING UTILITIES, PILE DRIVING, LANDSCAPING AND OTHER EXCAVATIONS AS DEFINED IN SECTION 2-151 OF THE ZONING ORDINANCE) OR A RESOURCE MANAGEMENT PLAN MUST BE IN PLACE TO PRESERVE AND/OR RECOVER SIGNIFICANT RESOURCES IN CONCERT WITH CONSTRUCTION ACTIVITIES. TO CONFIRM, CALL ALEXANDRIA ARCHAEOLOGY AT (703) 746-4399.
2. THE CONTRACTOR SHALL CALL ALEXANDRIA ARCHAEOLOGY IMMEDIATELY (703- 746-4399) IF ANY BURIED STRUCTURAL REMAINS (WALL FOUNDATIONS, WELLS, PRIVIES, CISTERNS, ETC.) OR CONCENTRATIONS OF ARTIFACTS ARE DISCOVERED DURING CONSTRUCTION. WORK MUST CEASE IN THE AREA OF THE DISCOVERY UNTIL A CITY ARCHAEOLOGIST COMES TO THE SITE AND RECORDS THE FINDS.

EXISTING CONDITIONS SURVEY NOTES

HORIZONTAL DATUM* NORTH AMERICAN DATUM OF 1983, NAD83
VERTICAL DATUM* NORTH AMERICAN DATUM OF 1988, NAVD88*

1. UTILITY INFORMATION, AS SHOWN ON THIS PLAN, IS TAKEN FROM THE RECORDS AND/OR FIELD SURVEY GIVEN BY CITY OF ALEXANDRIA; AND CANNOT BE GUARANTEED. FOR EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES, NOTIFY "MISS UTILITY" AT 1-800-552-7001 AND 811 72 HOURS BEFORE THE START OF ANY EXCAVATION OR CONSTRUCTION. CONTRACTOR IS ENCOURAGED TO VISIT DOMINION VIRGINIA POWER'S WEB SITE AT (KEYWORD "SAFETY") FOR ADDITIONAL SAFETY INSTRUCTIONS.
2. LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHOULD DIG TEST PITS BY HAND AT ALL UTILITY CROSSINGS TO VERIFY EXACT LOCATION.

*PER MEMORANDUM TO INDUSTRY, JULY 20, 2005: THE PLAN SHALL BE PREPARED USING VIRGINIA STATE N PLANE (NORTH ZONE) COORDINATES BASED ON NAD83 AND NAVD88; HOWEVER, IF THE CURRENT DRAWINGS ARE PREPARED USING NORTH AMERICAN DATUM OF 1927 (NAD27) AND NORTH GEODETIC VERTICAL DATUM OF 1929 (NGVD29) THEN THE AS-BUILT DRAWINGS SHALL PROVIDE A CONVERSION TABLE OF SANITARY AND STORM SEWER DATA IN THE NAD83 AND NAVD88 DATUMS.

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2015 KIMLEY-HORN AND ASSOCIATES, INC.
11400 COMMERCE PARK DRIVE, SUITE 400, RESTON, VA 20191
PHONE: 703-674-1300 FAX: 703-674-1350
WWW.KIMLEY-HORN.COM

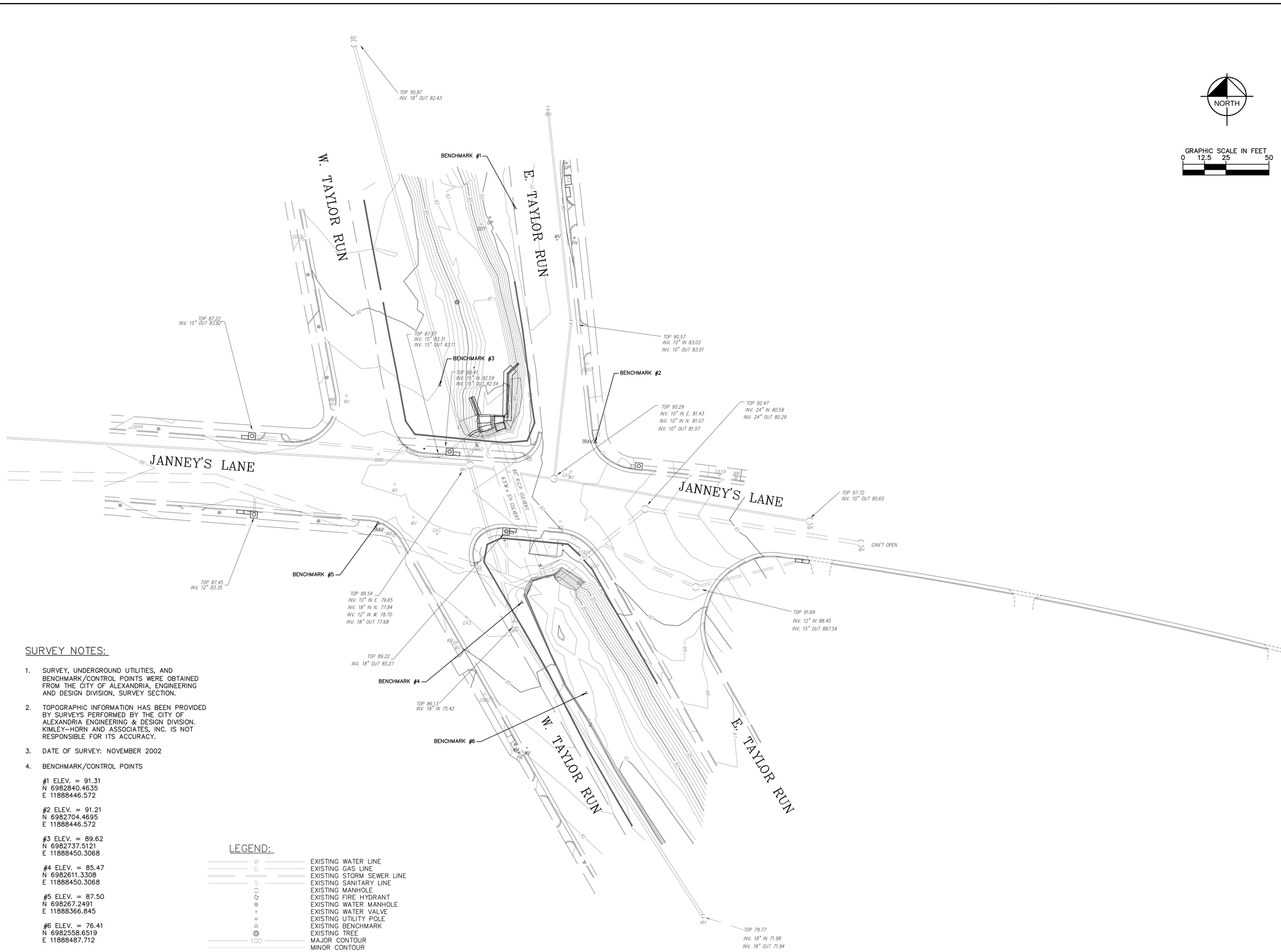
COMMONWEALTH OF VIRGINIA
KYLE T. BULLINGER
Lic. No. 051017
PROFESSIONAL ENGINEER
4/24/2015

KHA PROJECT 110104020
DATE 4/23/15
SCALE
DESIGNED BY: EJD
DRAWN BY: EJD
CHECKED BY: GDG

GENERAL NOTES

TAYLOR RUN/
JANNEY'S LANE
PREPARED FOR
CITY of ALEXANDRIA
VIRGINIA
ALEXANDRIA

SHEET NUMBER
3



SURVEY NOTES:

1. SURVEY, UNDERGROUND UTILITIES, AND BENCHMARK/CONTROL POINTS WERE OBTAINED FROM THE CITY OF ALEXANDRIA, ENGINEERING AND DESIGN DIVISION, SURVEY SECTION.
2. TOPOGRAPHIC INFORMATION HAS BEEN PROVIDED BY SURVEYS PERFORMED BY THE CITY OF ALEXANDRIA ENGINEERING & DESIGN DIVISION. KIMLEY–HORN AND ASSOCIATES, INC. IS NOT RESPONSIBLE FOR ITS ACCURACY.
3. DATE OF SURVEY: NOVEMBER 2002
4. BENCHMARK/CONTROL POINTS

   #1 ELEV. = 91.31
   N 6982840.4635
   E 11888446.572

   #2 ELEV. = 91.21
   N 6982704.4695
   E 11888446.572

   #3 ELEV. = 89.62
   N 6982737.5121
   E 11888450.3068

   #4 ELEV. = 85.47
   N 6982611.3308
   E 11888450.3068

   #5 ELEV. = 87.50
   N 698267.2491
   E 11888366.845

   #6 ELEV. = 76.41
   N 6982558.6519
   E 11888487.712
5. ELEVATIONS ARE BASED ON NAVD 88
6. HORIZONTAL NORTHINGS AND EASTINGS ARE BASED ON STATE PLANE COORDINATE SYSTEM NAD 83 (VIRGINIA NORTH ZONE).

LEGEND:

- W — EXISTING WATER LINE
- G — EXISTING GAS LINE
- STORM — EXISTING STORM SEWER LINE
- S — EXISTING SANITARY LINE
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING WATER MANHOLE
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING BENCHMARK
- EXISTING TREE
- 100 — MAJOR CONTOUR
- MINOR CONTOUR

No.	REVISIONS	DATE	BY

Kimley»Horn

11400 COMMERCE PARK DRIVE, SUITE 400, RESTON, VA 20191
PHONE: 703–674–1300 FAX: 703–674–1350
WWW.KIMLEY–HORN.COM

COMMONWEALTH OF VIRGINIA
KYLE T. BULLINGER
Lic. No. 051017
4/24/2015
PROFESSIONAL ENGINEER

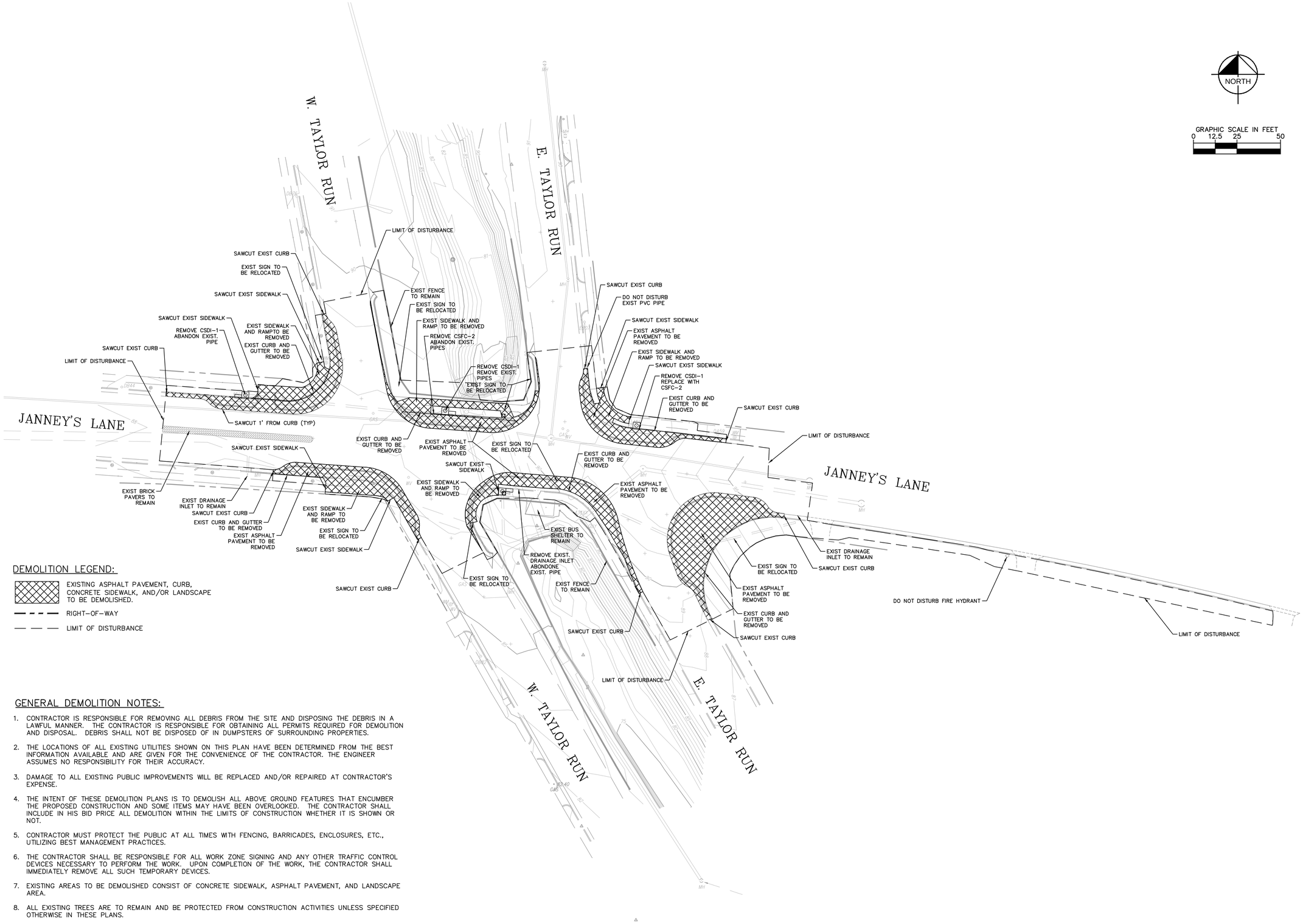
KHA PROJECT 110104020
DATE 4/23/15
SCALE 1:25
DESIGNED BY: EJD
DRAWN BY: EJD
CHECKED BY: CDG

EXISTING CONDITIONS SHEET

TAYLOR RUN/ JANNEY'S LANE

PREPARED FOR
CITY of ALEXANDRIA
VIRGINIA
ALEXANDRIA

SHEET NUMBER
4



DEMOLITION LEGEND:

- EXISTING ASPHALT PAVEMENT, CURB, CONCRETE SIDEWALK, AND/OR LANDSCAPE TO BE DEMOLISHED.
- RIGHT-OF-WAY
- LIMIT OF DISTURBANCE

GENERAL DEMOLITION NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL. DEBRIS SHALL NOT BE DISPOSED OF IN DUMPSTERS OF SURROUNDING PROPERTIES.
2. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY.
3. DAMAGE TO ALL EXISTING PUBLIC IMPROVEMENTS WILL BE REPLACED AND/OR REPAIRED AT CONTRACTOR'S EXPENSE.
4. THE INTENT OF THESE DEMOLITION PLANS IS TO DEMOLISH ALL ABOVE GROUND FEATURES THAT ENCUMBER THE PROPOSED CONSTRUCTION AND SOME ITEMS MAY HAVE BEEN OVERLOOKED. THE CONTRACTOR SHALL INCLUDE IN HIS BID PRICE ALL DEMOLITION WITHIN THE LIMITS OF CONSTRUCTION WHETHER IT IS SHOWN OR NOT.
5. CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, ETC., UTILIZING BEST MANAGEMENT PRACTICES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE SIGNING AND ANY OTHER TRAFFIC CONTROL DEVICES NECESSARY TO PERFORM THE WORK. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL IMMEDIATELY REMOVE ALL SUCH TEMPORARY DEVICES.
7. EXISTING AREAS TO BE DEMOLISHED CONSIST OF CONCRETE SIDEWALK, ASPHALT PAVEMENT, AND LANDSCAPE AREA.
8. ALL EXISTING TREES ARE TO REMAIN AND BE PROTECTED FROM CONSTRUCTION ACTIVITIES UNLESS SPECIFIED OTHERWISE IN THESE PLANS.

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2015 KIMLEY-HORN AND ASSOCIATES, INC.
11400 COMMERCE PARK DRIVE, SUITE 400, RESTON, VA 20191
PHONE: 703-674-1300 FAX: 703-674-1350
WWW.KIMLEY-HORN.COM

COMMONWEALTH OF VIRGINIA
KYLE T. BULLINGER
Lic. No. 051017
4/24/2015
PROFESSIONAL ENGINEER

KHA PROJECT 110104020
DATE 4/23/15
SCALE 1:25
DESIGNED BY: EJB
DRAWN BY: EJD
CHECKED BY: GDG

DEMOLITION PLAN

TAYLOR RUN/ JANNEY'S LANE

PREPARED FOR
CITY of ALEXANDRIA
VIRGINIA
ALEXANDRIA

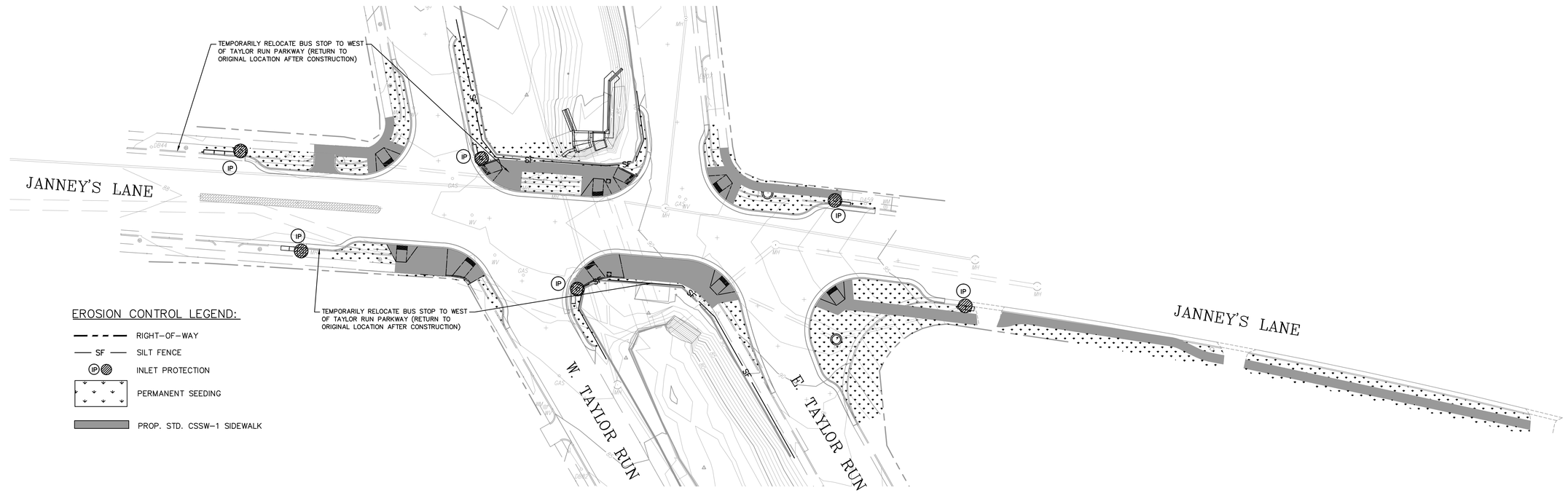
SHEET NUMBER
5

PHASE 1

NORTH

GRAPHIC SCALE IN FEET
0 12.5 25 50

PHASE 2



EROSION CONTROL LEGEND:

- RIGHT-OF-WAY
- SF — SILT FENCE
- IP — INLET PROTECTION
- PERMANENT SEEDING
- PROP. STD. CSSW-1 SIDEWALK

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2015 KIMLEY-HORN AND ASSOCIATES, INC.
11400 COMMERCE PARK DRIVE, SUITE 400, RESTON, VA 20191
PHONE: 703-674-1300 FAX: 703-674-1350
WWW.KIMLEY-HORN.COM

COMMONWEALTH OF VIRGINIA
KYLE T. BULLINGER
Lic. No. 051017
4/24/2015
PROFESSIONAL ENGINEER

KHA PROJECT	110104020
DATE	4/23/15
SCALE	1:25
DESIGNED BY:	EJD
DRAWN BY:	EJD
CHECKED BY:	GDG

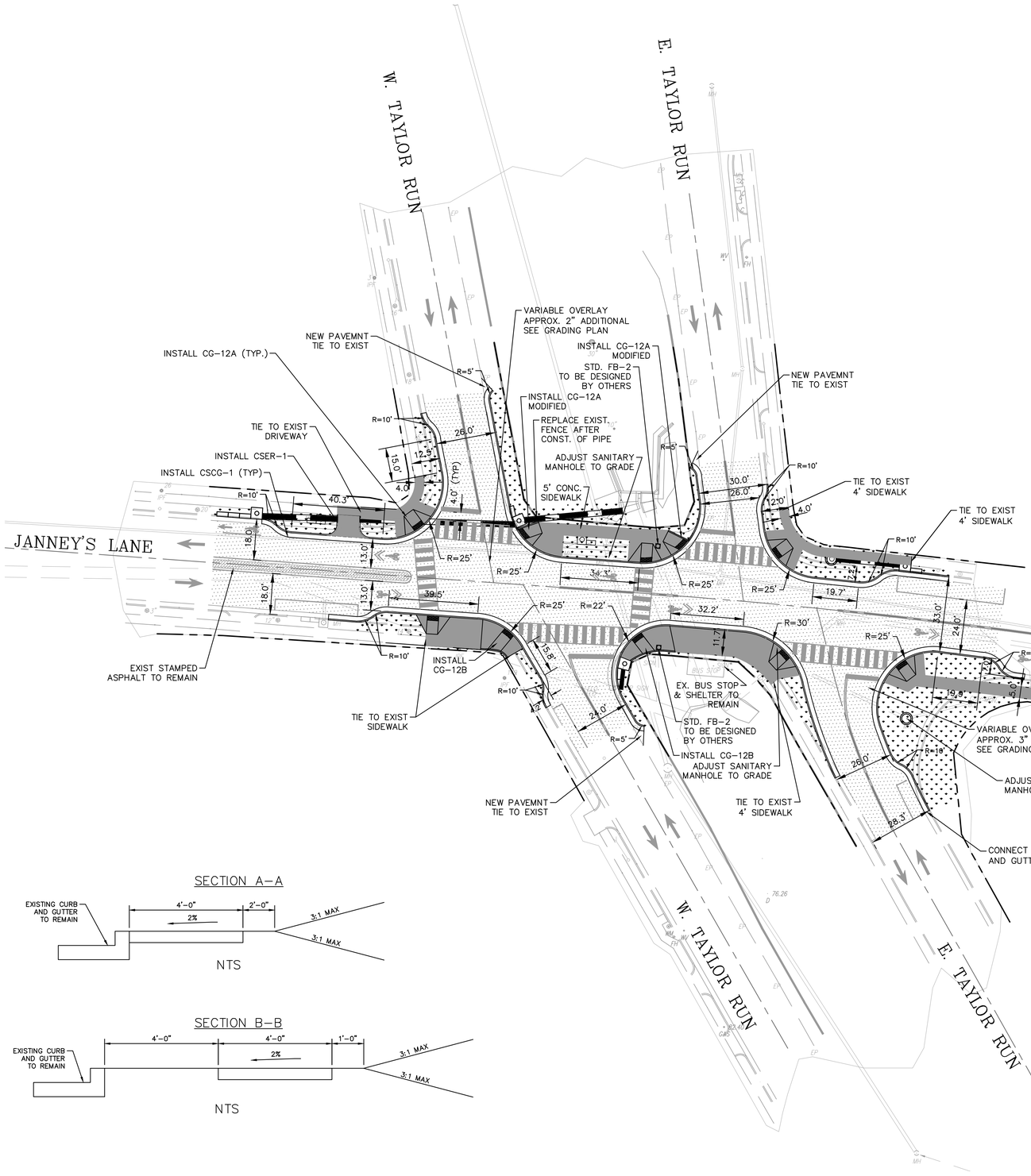
EROSION CONTROL PLAN

TAYLOR RUN/ JANNEY'S LANE

PREPARED FOR
CITY of ALEXANDRIA
VIRGINIA

ALEXANDRIA

SHEET NUMBER
6



NORTH

GRAPHIC SCALE IN FEET
0 12.5 25 50

NOTES:

DIMENSION FROM FACE OF CURB UNLESS OTHERWISE NOTED

SECTION A–A

NTS

SECTION B–B

NTS

LEGEND:

- RIGHT–OF–WAY
- PROP. ASPHALT MILL AND OVERLAY
- PROP. STD. CSCG–1 CURB AND GUTTER
- EX. CURB AND GUTTER
- PROP. STD. CSSW–1 4' SIDEWALK
- PROP. SEEDING AREA/GREEN SPACE
- PROP. VDOT STD. CG–12 ADA CURB RAMP WITH STD. RAISED DETECTABLE WARNING SURFACE
- PROP. STD. CSDI–1 or 1A DRAINAGE INLET
- PROP. STD. CSFC–2 STORM SEWER MANHOLE TOP

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2015 KIMLEY–HORN AND ASSOCIATES, INC.
11400 COMMERCE PARK DRIVE, SUITE 400, RESTON, VA 20191
PHONE: 703–674–1300 FAX: 703–674–1350
WWW.KIMLEY–HORN.COM

COMMONWEALTH OF VIRGINIA
KYLE T. BULLINGER
Lic. No. 051017
4/24/2015
PROFESSIONAL ENGINEER

KHA PROJECT	110104020
DATE	4/23/15
SCALE	1:25
DESIGNED BY:	EJD
DRAWN BY:	EJD
CHECKED BY:	GDC

GEOMETRIC LAYOUT

TAYLOR RUN/ JANNEY'S LANE

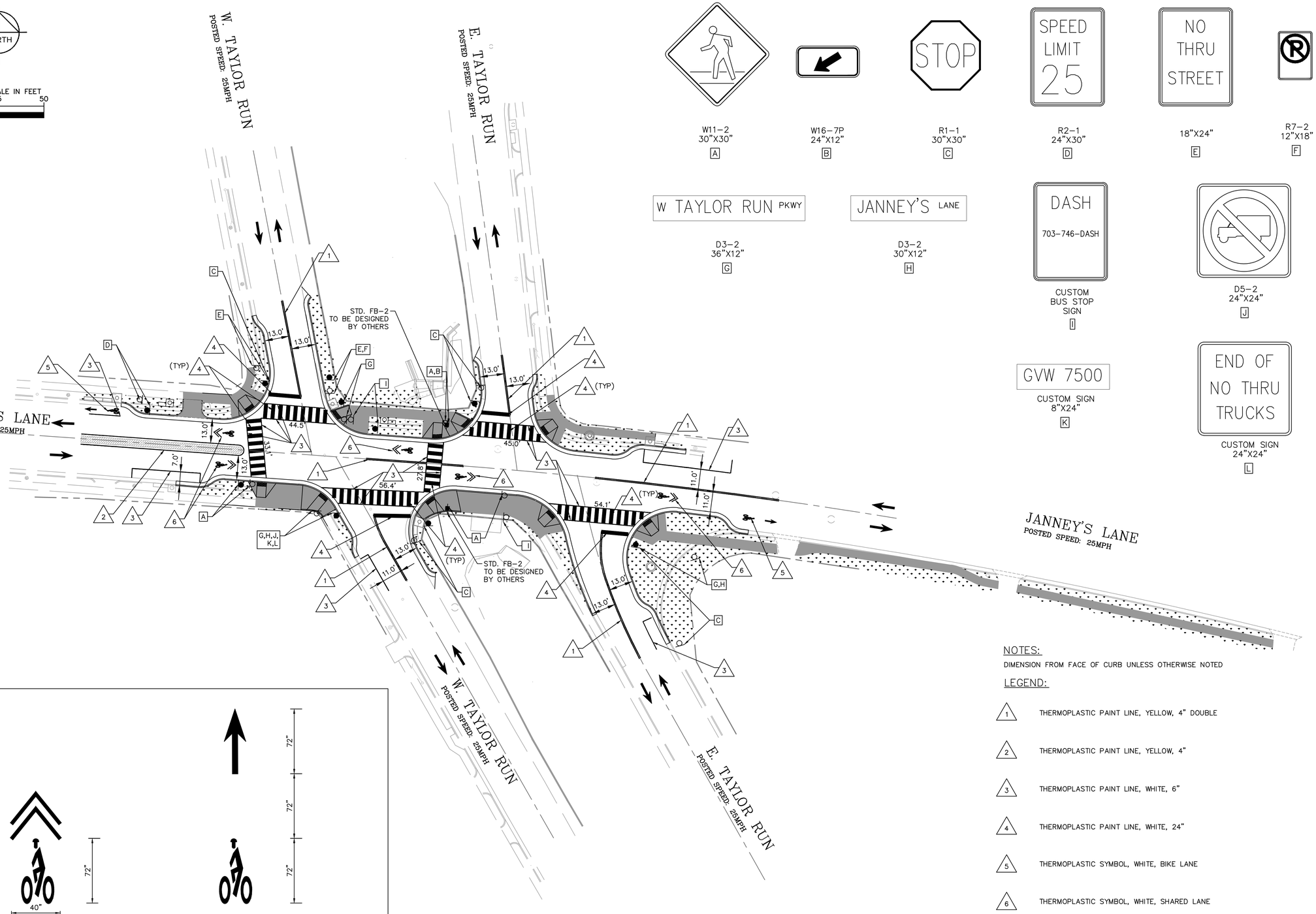
PREPARED FOR
CITY of ALEXANDRIA
VIRGINIA

ALEXANDRIA

SHEET NUMBER
7

NORTH

GRAPHIC SCALE IN FEET
0 12.5 25 50



SIGN LEGEND:

W11-2
30"X30"
A

W16-7P
24"X12"
B

R1-1
30"X30"
C

R2-1
24"X30"
D

18"X24"
E

R7-2
12"X18"
F

D3-2
36"X12"
G

D3-2
30"X12"
H

CUSTOM
BUS STOP
SIGN
I

D5-2
24"X24"
J

CUSTOM SIGN
8"X24"
K

CUSTOM SIGN
24"X24"
L

NOTES:

DIMENSION FROM FACE OF CURB UNLESS OTHERWISE NOTED

LEGEND:

1. THERMOPLASTIC PAINT LINE, YELLOW, 4" DOUBLE
2. THERMOPLASTIC PAINT LINE, YELLOW, 4"
3. THERMOPLASTIC PAINT LINE, WHITE, 6"
4. THERMOPLASTIC PAINT LINE, WHITE, 24"
5. THERMOPLASTIC SYMBOL, WHITE, BIKE LANE
6. THERMOPLASTIC SYMBOL, WHITE, SHARED LANE

PROPOSED LOCATION OF SIGNS

EXISTING LOCATION OF SIGNS

SHARED LANE MARKING

HELMETED BICYCLIST SYMBOL
SOURCE: 2009 MUTCD FIGURE 9C-3

ROADWAY PAVEMENT MARKING DETAILS

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2015 KIMLEY-HORN AND ASSOCIATES, INC.
11400 COMMERCE PARK DRIVE, SUITE 400, RESTON, VA 20191
PHONE: 703-674-1300 FAX: 703-674-1350
WWW.KIMLEY-HORN.COM

COMMONWEALTH OF VIRGINIA
KYLE T. BOLLINGER
Lic. No. 051017
4/24/2015
PROFESSIONAL ENGINEER

KHA PROJECT 110104020
DATE 4/23/15
SCALE 1:25
DESIGNED BY: EJD
DRAWN BY: EJD
CHECKED BY: GDG

SIGNING & MARKING PLAN

TAYLOR RUN/ JANNEY'S LANE

PREPARED FOR
CITY of ALEXANDRIA
VIRGINIA
ALEXANDRIA

SHEET NUMBER
8

Drainage Area Runoff Coefficients for Rational Method

Project: Taylor Run at Janney's Lane **Date:** 01/30/15 **Initials:** DCD

	Runoff Coefficients																
	0.90	0.85	0.80	0.75	0.70	0.65	0.60	0.55	0.50	0.45	0.40	0.35	0.30	0.25	0.20	Total Area	Weighted Rational Factor
Surface Type	90% Impervious			75% Impervious			50% Impervious			30% Impervious			15% Impervious				
	Roofs										Ditches						
	Concrete			Apartments						17k ft² Single-Family Lots							
	Asphalt			Townhomes			Schools				½ Acre Single-Family Lots						
	Business				Gravel				10k ft² Single-Family Lots			Lawns					
Drainage Area (acres)	Industrial				Lined Ditches					Pastures			Forests			A	C
	Commercial				Cultivated Areas								Parks / Cemeteries			acres	
1	1.35										2.05					3.40	0.60
2	0.29										0.19					0.48	0.70
3	0.15															0.15	0.90
4	0.12															0.12	0.90
5	0.08										0.02					0.10	0.80
6	0.49										0.75					1.24	0.60

Use the high end of each range for conditions that would speed up surface flow such as steep (>5% Slope) and/or bare surfaces
Use the low end of each range for conditions that would slow down surface flow such as flat (<2% Slope) and/or highly vegetated surfaces

Time of Concentration Calculations for Rational Method

Project: Taylor Run at Janney's Lane **Date:** 01/30/15 **Initials:** DCD

	Overland/Sheet Flow (Seelye) 200' Maximum					Shallow Concentrated Flow (TR-55) Overland Flow >200' or Gutter Flow					Channelized Flow Ditches/Streams/Pipes			Total Time of Concentration	
Factors of Flow Time	Flow Length	Ground Slope	Weighted Rational Factor	Average Velocity	Time of Concentration	Flow Length	Ground Slope	Weighted Rational Factor	Average Velocity	Time of Concentration	Flow Length	Average Velocity (~ 2.5 ft/s)	Time of Concentration	Calculated	For Design
Drainage Basin	L ft	S ft/ft	C	V ft/s	Tc min	L ft	S ft/ft	C	V ft/s	Tc min	L ft	V ft/s	Tc min	Tc min	Tc min
1	180	0.050	0.60	0.5	5.9	730	0.010	0.90	2.0	6.2				12.0	12
2	20	0.030	0.70	0.2	2.2	250	0.014	0.90	2.4	1.7				3.9	5
3	10	0.020	0.90	0.1	1.4	124	0.009	0.90	1.9	1.1				2.5	5
4	10	0.020	0.90	0.1	1.4	167	0.020	0.90	2.9	1.0				2.4	5
5	19	0.020	0.80	0.2	2.0	94	0.053	0.90	4.7	0.3				2.4	5
6	120	0.030	0.60	0.4	5.5	500	0.050	0.90	4.6	1.8				7.3	7

Seelye Equation: $Tc = 0.225L^{0.42} S^{-0.19} C^{-1.0}$
TR-55 Equation: $S = 0.004V^{1.97}$ on unpaved surfaces (C = 0.30) and $S = 0.0025V^{1.97}$ on paved surfaces (C = 0.90)

No.	REVISIONS	DATE	BY

Kimley»Horn

11400 COMMERCE PARK DRIVE, SUITE 400, RESTON, VA 20191
PHONE: 703-674-1300 FAX: 703-674-1350
WWW.KIMLEY-HORN.COM

COMMONWEALTH OF VIRGINIA
KYLE T. BULLINGER
Lic. No. 051017
PROFESSIONAL ENGINEER
4/24/2015

KHA PROJECT	110104020
DATE	4/23/15
SCALE	1:25
DESIGNED BY:	EJD
DRAWN BY:	EJD
CHECKED BY:	GDG

DRAINAGE AREA PLAN

TAYLOR RUN/ JANNEY'S LANE

PREPARED FOR
CITY of ALEXANDRIA
ALEXANDRIA VIRGINIA

SHEET NUMBER
9

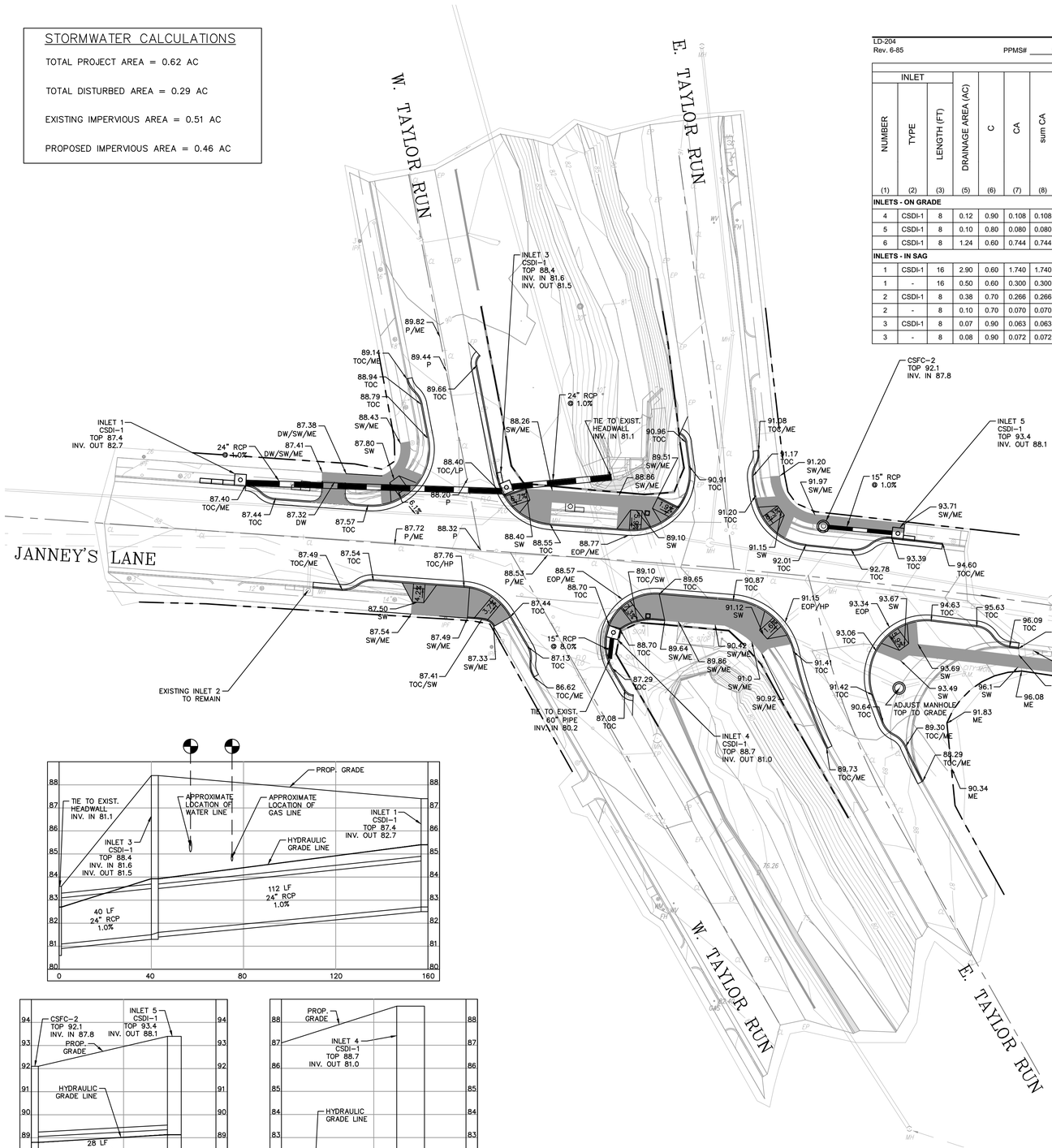
STORMWATER CALCULATIONS

TOTAL PROJECT AREA = 0.62 AC

TOTAL DISTURBED AREA = 0.29 AC

EXISTING IMPERVIOUS AREA = 0.51 AC

PROPOSED IMPERVIOUS AREA = 0.46 AC



*NOTE:

STORMWATER PROFILES ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR TO FIELD VERIFY ALL UTILITY LOCATIONS AND SHALL NOTIFY THE OWNER OF ANY UTILITY CONFLICTS BEFORE BEGINNING CONSTRUCTION.

Appendix 9B-1 LD-204 Stormwater Inlet Computations

LD-204 Rev. 6-85 — PPMS# 110104020 — PROJ Taylor Run at Janneys Lane — DATE March 13, 2015 — SHEET 1 OF 1

	INLET																								Sag Inlets Only				
NUMBER	TYPE	LENGTH (FT)	DRAINAGE AREA (AC)	C	CA	sum CA	I (INIHR)	Q, INCR (CFS)	Q_b, CARRYOVER (CFS)	Q_T, GUTTER FLOW (CFS)	S, GUTTER SLOPE (FT/FT)	S_x, CROSS SLOPE (FT/FT)	T, SPREAD (FT)	W (FT)	W/T	S_w, (FT/FT)	S_w/S_x	E_o	a = 12W(S_w - S_x)+Local Depression	S_W = a/(12w)	S_e = S_x + S_W(E_o), (FT/FT)	COMPUTED LENGTH, L_T, (FT)	L, SPECIFIED LENGTH (FT)	L/L_T	E	Q_a, INTERCEPTED (CFS)	Qb, CARRYOVER (CFS)	d (FT)	h (FT)	d/h	T, SPREAD @ SAG (FT)	REMARKS
(1)	(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	
INLETS - ON GRADE																																
4	CSDI-1	8	0.12	0.90	0.108	0.108	9.0	0.972	0.000	0.972	0.0200	0.0150	5.58	2	0.36	0.0625	4.17	0.85	2.14	0.089	0.091	10	8	0.80	0.94	0.92	0.054					Bypass to: -
5	CSDI-1	8	0.10	0.80	0.080	0.080	9.0	0.720	0.000	0.720	0.0528	0.0300	2.47	2	0.81	0.0625	2.08	1.00	1.78	0.074	0.104	11	8	0.73	0.90	0.65	0.069					Bypass to: -
6	CSDI-1	8	1.24	0.60	0.744	0.744	9.0	6.696	0.000	6.696	0.0500	0.0300	7.77	2	0.26	0.0625	2.08	0.61	1.78	0.074	0.075	32	8	0.25	0.40	2.71	3.990					Bypass to: -
INLETS - IN SAG																																
1	CSDI-1	16	2.90	0.60	1.740	1.740	9.0	6.960	0.000	6.960	0.0095	0.0350	10.08	2	0.20	0.0625	1.79	0.48	1.66	0.069	0.068	26.78	16	0.60	0.81	6.45	0.505	0.320	0.420	0.762	9.143	32"Throat for 50% blockage
1	-	16	0.50	0.60	0.300	0.300	9.0	1.200	0.000	1.200	0.0030	0.0350	10.08	2	0.20	0.0625	1.79	0.70	1.66	0.069	0.083	8.07	16	1.98	1.00	1.20	0.000					
2	CSDI-1	8	0.38	0.70	0.266	0.266	9.0	1.064	0.000	1.064	0.0140	0.0370	4.10	2	0.49	0.0625	1.69	0.88	1.61	0.067	0.096	11.08	8	0.72	0.90	1.05	0.011	0.136	0.420	0.325	3.686	16"Throat for 50% blockage
2	-	8	0.10	0.70	0.070	0.070	9.0	0.280	0.000	0.280	0.0050	0.0370	4.10	2	0.49	0.0625	1.69	0.98	1.61	0.067	0.103	4.37	8	1.83	1.00	0.28	0.000					
3	CSDI-1	8	0.07	0.90	0.063	0.063	9.0	0.252	0.000	0.252	0.0220	0.0143	5.19	2	0.39	0.0625	4.37	1.00	2.16	0.090	0.104	6.34	8	1.26	1.00	0.25	0.000	0.074	0.420	0.177	5.194	16"Throat for 50% blockage
3	-	8	0.08	0.90	0.072	0.072	9.0	0.288	0.000	0.288	0.0090	0.0143	5.19	2	0.39	0.0625	4.37	0.99	2.16	0.090	0.104	5.34	8	1.50	1.00	0.29	0.000					

LD-347 Rev. 8/11/09 — HYDRAULIC GRADE LINE — PROJECT: Taylor Run at Janney's Lane

INLET STATION	Outlet Water Surface Elev.	D_o	Q_o	L_o	S_{f_o} %	H_f	JUNCTION LOSS V_o	H_o	Q_i	V_i	Q_iV_i	V_i^2 2g	H_i	Angle	H_Δ	H_t	1.3 H_t	0.5 H_t	Final H	Inlet Water Surface Elev.	Rim Elev.
3	82.70	24	19.6	40	1	0.4	8.3	0.27	13.1	8.3	109	1.07	0.37	0	0	0.64	0.83	-	1.23	83.93	88.4
1	83.93	24	13.1	112	1	1.12	8.3	0.27								0.27	0.35	-	1.47	85.40	87.4
4	81.20	15	0.73	10	8	0.8	8.1	0.25								0.25	0.33	-	1.13	82.33	87.29
5	88.80	15	0.54	28	1	0.28	3.1	0.04								0.04	0.05	-	0.33	89.13	92.1

LD-229 July 2000

STORM SEWER DESIGN COMPUTATIONS

ROUTE: 420 PROJ: Taylor Run at Janney's Lane
COUNTY: Alexandria, VA DISTRICT:
DESCRIPTION:
SHEET 1 OF 1

FROM POINT	TO POINT	AREA DRAIN "A" ACRES	RUN-OFF COEF C	CA INCREMENT	CA ACCUMULATE	INLET TIME MINUTES	RAIN FALL IN./HR.	RUN-OFF Q C.F.S.	INVERT ELEVATIONS UPPER END	INVERT ELEVATIONS LOWER END	LENGTH FT.	SLOPE FT./FT.	DIA. IN.	CAPACITY C.F.S.	VEL. F.P.S.	FLOW TIME SEC.	REMARKS
1	3	3.40	0.6	2.04	2.04	12	6.4	13.1	82.7	81.6	112	0.010	24	23	8.3	13.5	
3	OUTFALL	0.15	0.9	0.14	2.18	5	9	19.6	81.5	81.1	40	0.010	24	23	8.3	4.82	
4	EXIST. PIPE	0.12	0.9	0.11	0.11	5	9	0.97	81	80.2	10	0.080	15	18.5	9.3	1.08	
5	EXIST. STRUCT.	0.10	0.8	0.08	0.08	5	9	0.72	88.1	87.8	28	0.010	15	5.4	3.5	8	

GRADING KEYNOTES

ME = MATCH EXISTING

TOC = TOP OF CURB

EOP = EDGE OF PAVEMENT

P = PAVEMENT

SW = SIDEWALK

DW = DRIVE WAY

GRAPHIC SCALE IN FEET
0 12.5 25 50

LEGEND:

- RIGHT-OF-WAY
- PROP. ASPHALT MILL AND OVERLAY
- PROP. STD. CSCG-1 CURB AND GUTTER
- EX. CURB AND GUTTER
- PROP. STD. CSSW-1 SIDEWALK
- PROP. SEEDING AREA/GREEN SPACE
- PROP. VDOT STD. CG-12 ADA CURB RAMP WITH STD. RAISED DETECTABLE WARNING SURFACE
- PROP. STD. CSDI-1 or 1A DRAINAGE INLET
- PROP. STD. CSFC-2 STORM SEWER MANHOLE TOP
- TEST PIT/FIELD VERIFICATION REQ'D.

NO.	REVISIONS	DATE	BY

Kimley»Horn
© 2015 KIMLEY-HORN AND ASSOCIATES, INC.
11400 COMMERCE PARK DRIVE, SUITE 400, RESTON, VA 20191
PHONE: 703-674-1300 FAX: 703-674-1350
WWW.KIMLEY-HORN.COM

COMMONWEALTH OF VIRGINIA
KYLE T. BULLINGER
Lic. No. 051017
PROFESSIONAL ENGINEER
4/24/2015

KHA PROJECT 110104020
DATE 4/23/15
SCALE 1:25
DESIGNED BY: EJD
DRAWN BY: EJD
CHECKED BY: GDC

DRAINAGE AND GRADING LAYOUT

TAYLOR RUN/ JANNEY'S LANE

PREPARED FOR CITY of ALEXANDRIA VIRGINIA

ALEXANDRIA

SHEET NUMBER 10

Smeal Pumper CAFS

feet

Width	: 8.17
Track	: 7.94
Lock to Lock Time	: 6.0
Steering Angle	: 45.0

LEGEND

PROPOSED CURB AND GUTTER

PROPOSED 8' CROSSWALK

PROPOSED DRAINAGE INLET

PROPOSED DRAINAGE MANHOLE

GRAPHIC SCALE IN FEET
0 12.5 25 50

NORTH

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2015 KIMLEY-HORN AND ASSOCIATES, INC.
11400 COMMERCE PARK DRIVE, SUITE 400, RESTON, VA 20191
PHONE: 703-674-1300 FAX: 703-674-1350
WWW.KIMLEY-HORN.COM

COMMONWEALTH OF VIRGINIA
KYLE T. BULLINGER
Lic. No. 051017
4/24/2015
PROFESSIONAL ENGINEER

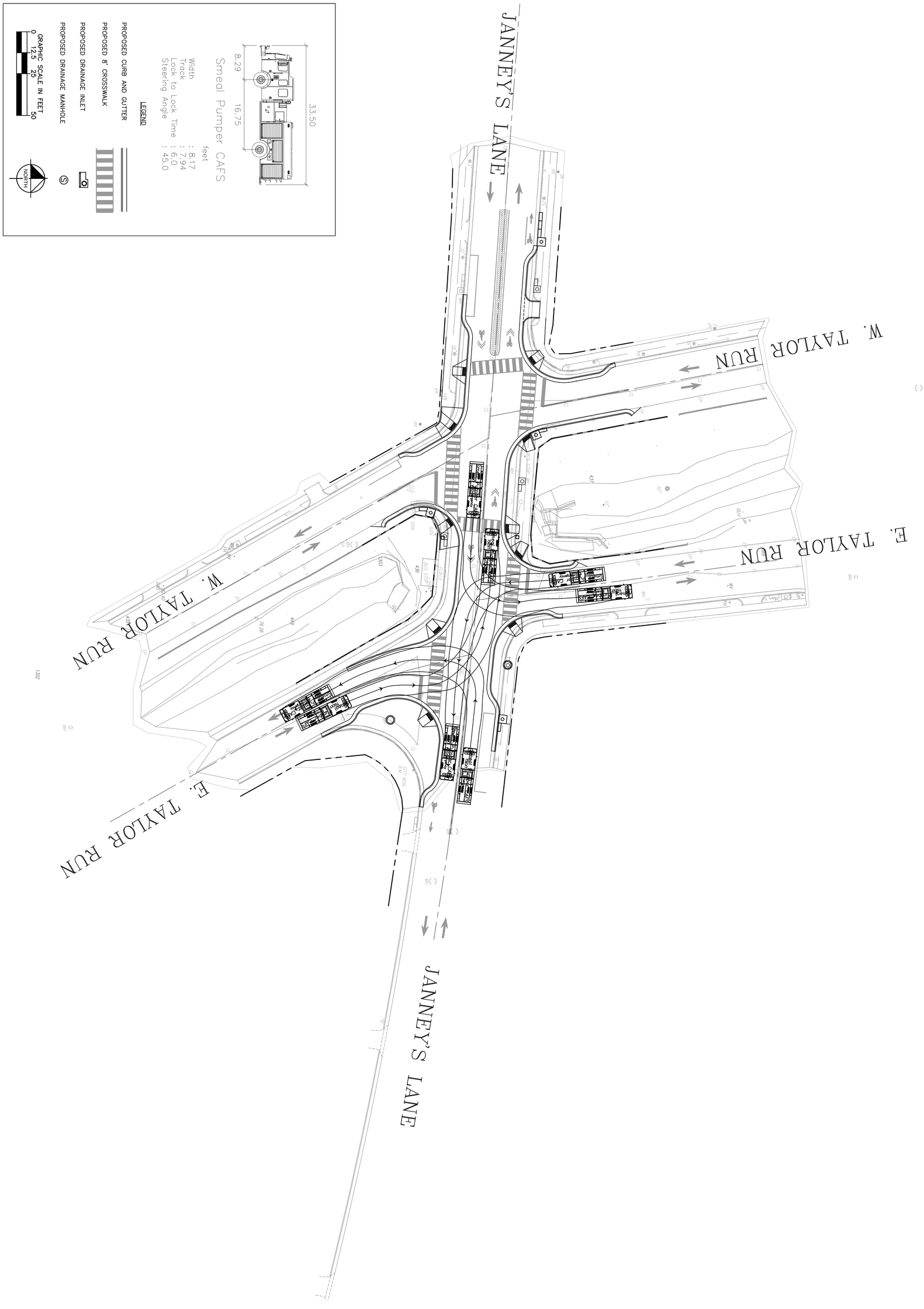
KHA PROJECT 110104020
DATE 4/23/15
SCALE 1:25
DESIGNED BY: EJD
DRAWN BY: EJD
CHECKED BY: GDG

AUTOTURN E. TAYLOR RUN RIGHT TURNS

TAYLOR RUN/ JANNEY'S LANE

PREPARED FOR
CITY of ALEXANDRIA
VIRGINIA
ALEXANDRIA

SHEET NUMBER
11



SHEET NUMBER 12

TAYLOR RUN/
JANNEY'S LANE
PREPARED FOR
CITY of ALEXANDRIA
ALEXANDRIA VIRGINIA

AUTOTURN
E. TAYLOR RUN
LEFT TURNS

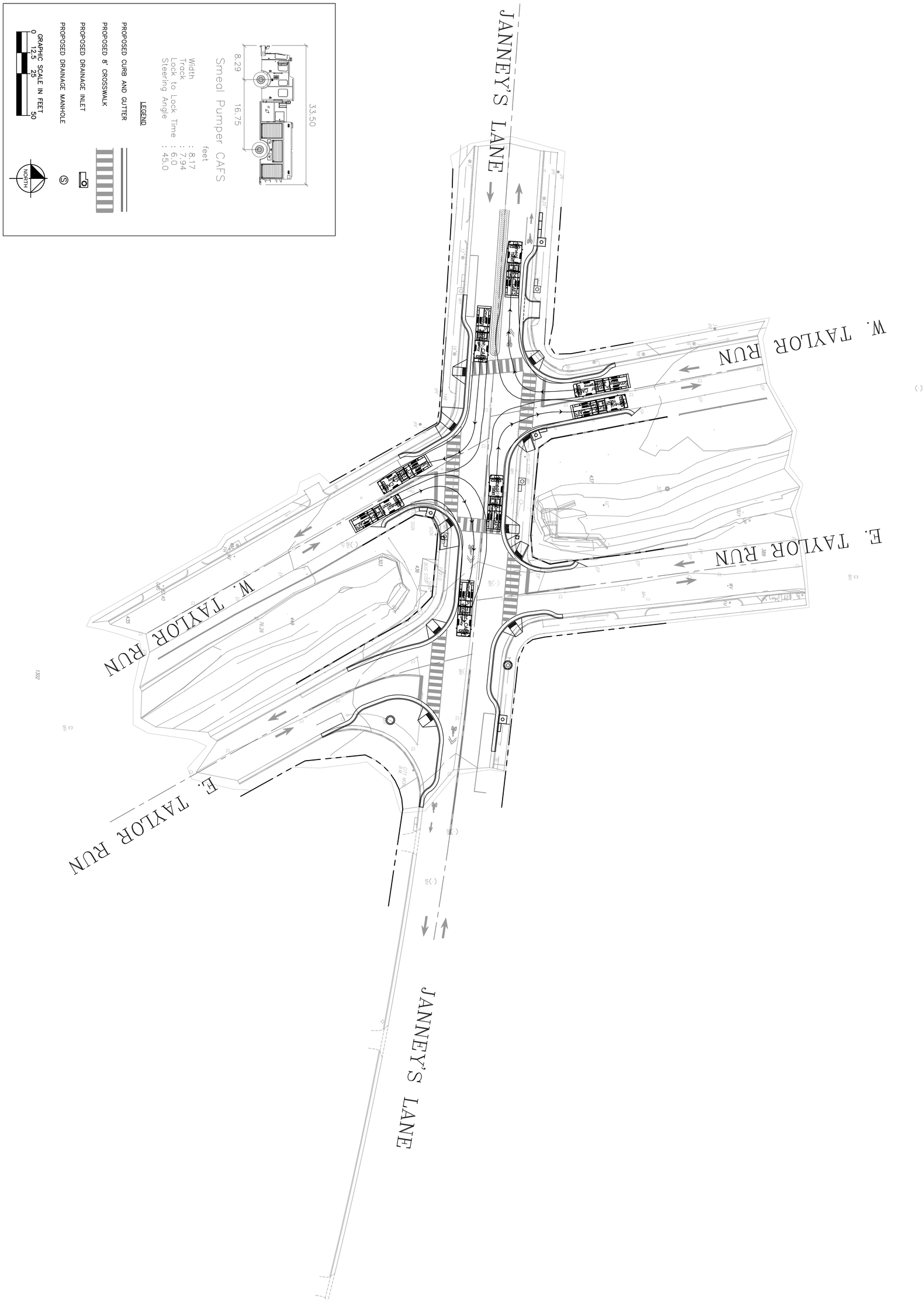
KHA PROJECT	110104020
DATE	4/23/15
SCALE	1:25
DESIGNED BY:	EJD
DRAWN BY:	EJD
CHECKED BY:	GDC

COMMONWEALTH OF VIRGINIA
KYLE T. BOLLINGER
Lic. No. 051017
4/24/2015
PROFESSIONAL ENGINEER

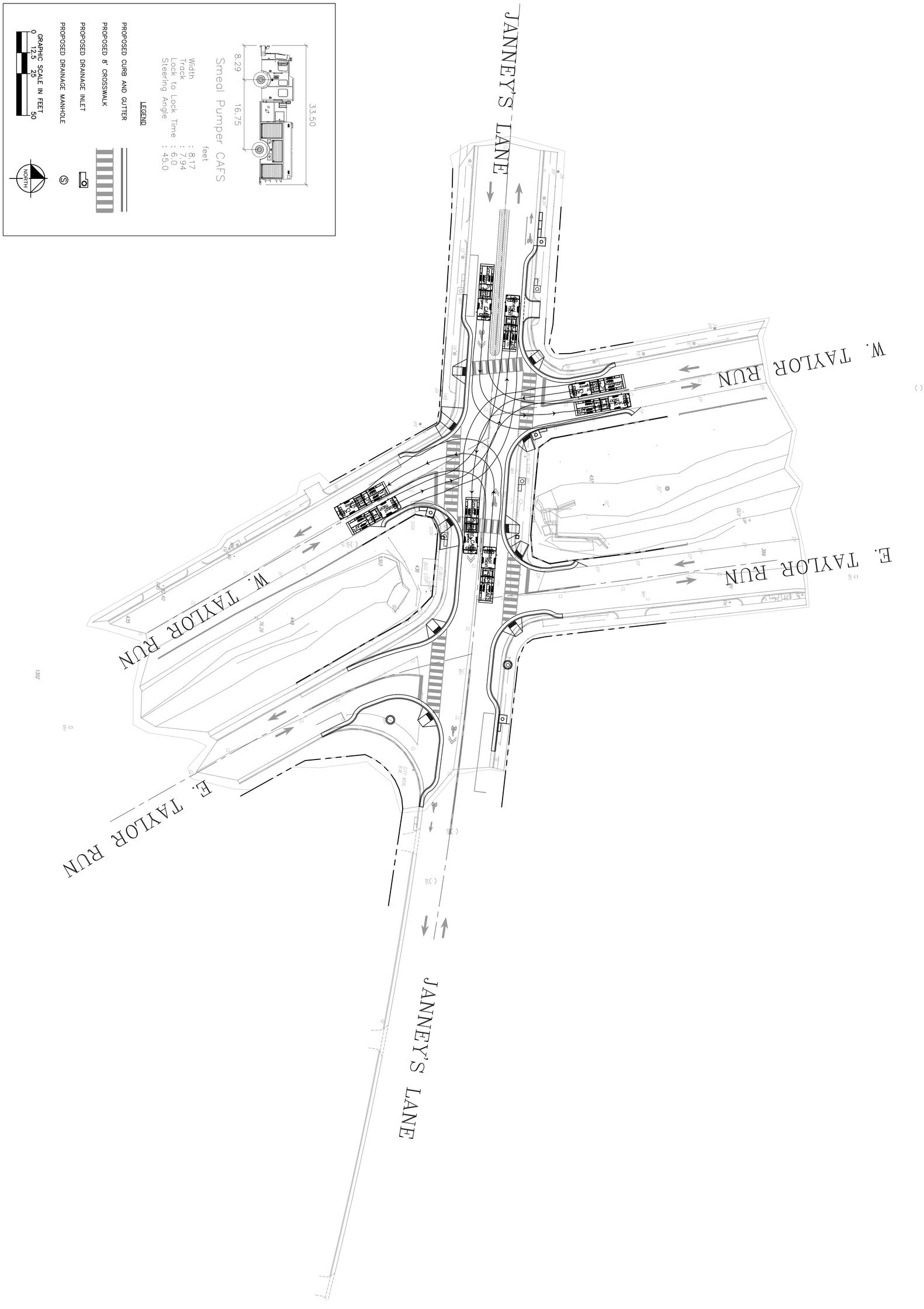
Kimley»Horn

11400 COMMERCE PARK DRIVE, SUITE 400, RESTON, VA 20191
PHONE: 703-674-1300 FAX: 703-674-1350
WWW.KIMLEY-HORN.COM

No.	REVISIONS	DATE	BY



SHEET NUMBER 13	TAYLOR RUN/ JANNEY'S LANE PREPARED FOR CITY of ALEXANDRIA ALEXANDRIA VIRGINIA	AUTOTURN W. TAYLOR RUN RIGHT TURNS	KHA PROJECT 110104020 DATE 4/23/15 SCALE 1:25 DESIGNED BY: EJD DRAWN BY: EJD CHECKED BY: GDC	COMMONWEALTH OF VIRGINIA KYLE T. BOLLINGER Lic. No. 051017 4/24/2015 PROFESSIONAL ENGINEER	Kimley»Horn 11400 COMMERCE PARK DRIVE, SUITE 400, RESTON, VA 20191 PHONE: 703-674-1300 FAX: 703-674-1350 WWW.KIMLEY-HORN.COM	No.	REVISIONS DATE BY



SHEET NUMBER 14	TAYLOR RUN/ JANNEY'S LANE PREPARED FOR CITY of ALEXANDRIA ALEXANDRIA VIRGINIA	AUTOTURN W. TAYLOR RUN LEFT TURNS	KHA PROJECT 110104020 DATE 4/23/15 SCALE 1:25 DESIGNED BY: EJD DRAWN BY: EJD CHECKED BY: GDC	COMMONWEALTH OF VIRGINIA KYLE T. BOLLINGER Lic. No. 051017 4/24/2015 PROFESSIONAL ENGINEER	Kimley»Horn © 2015 KIMLEY-HORN AND ASSOCIATES, INC. 11400 COMMERCE PARK DRIVE, SUITE 400, RESTON, VA 20191 PHONE: 703-674-1300 FAX: 703-674-1350 WWW.KIMLEY-HORN.COM	No.	REVISIONS DATE BY

Typical Traffic Control
Lane Closure on a Two-Lane Roadway Using Flaggers
(Figure TTC-23.0)
NOTES

Guidance:

1. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, and 500'-800' where the posted speed limit is greater than 45 mph.*
2. *Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the flagger station and transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. Generally speaking, motorists should have a clear line of sight from the graphic flagger symbol sign to the flagger.*

Option:

3. Where Right-of-Way or geometric conditions prevent the use of 48" x 48" signs, 36" x 36" signs may be used.

Standard:

4. **Flagging stations shall be located far enough in advance of the work space to permit approaching traffic to reduce speed and/or stop before passing the work space and allow sufficient distance for departing traffic in the left lane to return to the right lane before reaching opposing traffic (see Table 6H-3 on Page 6H-5).**
5. **All flaggers shall be state certified and have their certification card in their possession when performing flagging duties (see Section 6E.01, Qualifications for Flaggers).**
6. **Cone spacing shall be at the following:**

Location	Posted Speed Limit (mph)	
	0 – 35	36 +
Transition Spacing	20'	40'
Travelway Spacing	40'	80'

7. **A shadow vehicle with at least one high intensity amber rotating, oscillating, or strobe light shall be parked 80'-120' in advance of the first work crew.**

Option:

8. A supplemental flagger may be required in this area to give advance warning of the operation ahead by slowing approaching traffic prior to reaching the flagger station or queued traffic.

Guidance:

9. *If the queue of traffic reaches the BE PREPARED TO STOP (W3-4) sign, then the signs should be readjusted at greater distances.*
10. *When a highway-rail crossing exists within or upstream of the transition area and it is anticipated that queues resulting from the lane closure might extend through the highway-rail grade crossing, the temporary traffic control zone should be extended so that the transition area precedes the highway-rail crossing (see Figure TTC-56 for additional information on highway-rail crossings).*

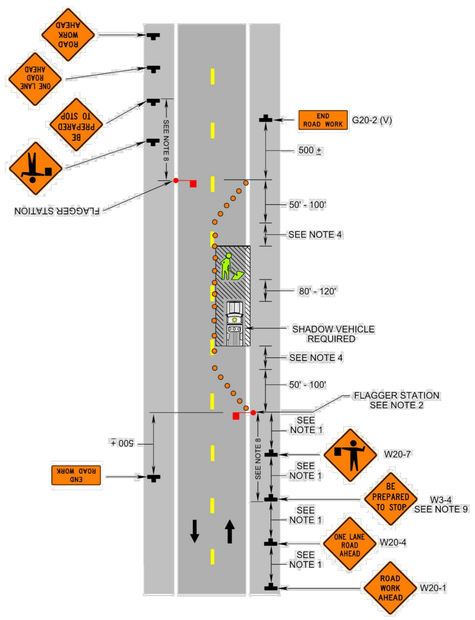
Standard:

11. **At night, flagger stations shall be illuminated, except in emergencies (see Section 6E.08).**

Option:

12. Cones may be eliminated when using a pilot vehicle operation or when the total roadway width is 20 feet or less.
13. For low-volume situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger, positioned to be visible to road users approaching from both directions, may be used (see Chapter 6E).

Lane Closure on a Two-Lane Roadway Using Flaggers
(Figure TTC-23.0)



Typical Traffic Control
Lane Closure Operation in an Intersection
(Figure TTC-28.0)
NOTES

Guidance:

1. *The control of traffic through the intersection in order of preference should be:*
   a. *Obtain the services of law enforcement personnel.*
   b. *Detour the effective routes to other roads and streets as approved and directed by the Regional Traffic Engineer.*
   c. *Place a state certified flagger on each leg of the intersection controlling a single lane of traffic.*

   Appropriate signing as shown should be used for law enforcement and flagging operations. For detour signs see Figure TTC-34.
2. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, 500'-800' where the posted speed limit is greater than 45 mph.*

Standard:

3. **Channelizing device spacing shall be on 20' centers or less.**

Guidance:

4. *If room permits, a shadow vehicle with at least one rotating amber light or high intensity amber strobe light should be parked 80'-120' in advance of the first work crew.*

Standard:

5. **If the posted speed limit is 45 mph or greater, the shadow vehicle shall have a truck-mounted attenuator.**
6. **For emergency situations (any non-planned operation) of 30 minutes or less duration, two rotating amber lights or high intensity amber strobe lights mounted on the vehicle and visible for 360° shall be required in addition to the channelizing devices shown around the vehicle. Also, vehicle hazard warning signals or amber oscillating lights shall be used.**

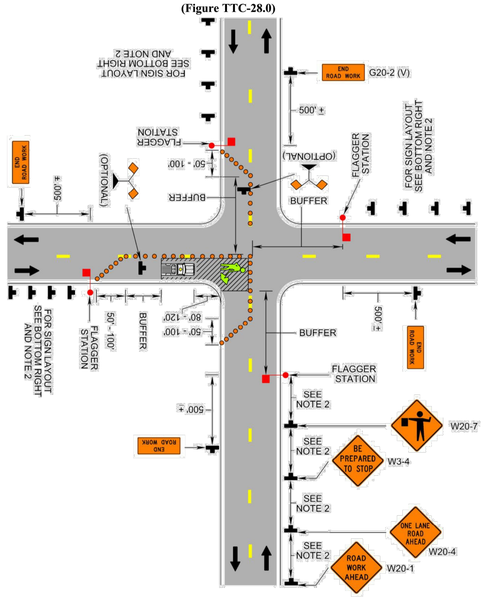
Guidance:

7. *If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure TTC-36.*

Support:

8. Turns can be prohibited as required by vehicular traffic conditions. Unless the streets are wide, it might be physically impossible to make certain turns, especially for large vehicles.

Lane Closure Operation in an Intersection
(Figure TTC-28.0)



Typical Traffic Control
Sidewalk Closure and Bypass Sidewalk Operation
(Figure TTC-35.0)
NOTES

Standard:

1. **When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.**

Guidance:

2. *Where high speeds are anticipated, a temporary traffic barrier and, if necessary, a crash cushion should be used to separate the temporary sidewalks from vehicular traffic.*
3. *Audible information devices should be considered where midblock closings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities.*
4. *Temporary markings should be considered for operations exceeding three days in duration.*

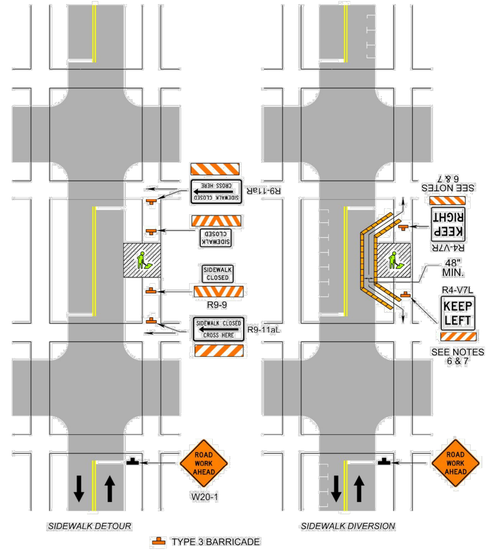
Option:

5. Only the TTC devices related to pedestrians are shown. Other devices, such as lane closure signing or ROAD NARROWS (W5-1) signs, may be used to control vehicular traffic.
6. For nighttime closures, Type A Flashing warning lights may be used on barricades that support signs and close sidewalks.
7. Signs, such as KEEP RIGHT (R4-V7R) and KEEP LEFT (R4-V7L), may be placed along a temporary sidewalk to guide or direct pedestrians.

Standard:

8. **All sidewalk closures shall be closed with Type 3 Barricades.**

Sidewalk Closure and Bypass Sidewalk Operation
(Figure TTC-35.0)



Typical Traffic Control
Crosswalk Closure and Pedestrian Detour Operation
(Figure TTC-36.0)
NOTES

Standard:

1. **When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.**
2. **Curb parking shall be prohibited for at least 50 feet in advance of the midblock crosswalk.**

Guidance:

3. *Audible information devices should be considered where midblock closings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities.*
4. *Pedestrian traffic signal displays controlling closed crosswalks should be covered or deactivated.*
5. *Temporary markings should be considered for operations exceeding three days in duration.*

Option:

6. Only the TTC devices related to pedestrians are shown. Other devices, such as lane closure signing or ROAD NARROWS (W5-1) signs, may be used to control vehicular traffic.
7. For nighttime closures, Type A Flashing warning lights may be used on barricades supporting signs and closing sidewalks.
8. In order to maintain the systematic use of the fluorescent yellow-green background for pedestrian, bicycle, and school warning signs in a jurisdiction, the fluorescent yellow-green background for pedestrian, bicycle, and school warning signs may be used in TTC zones.

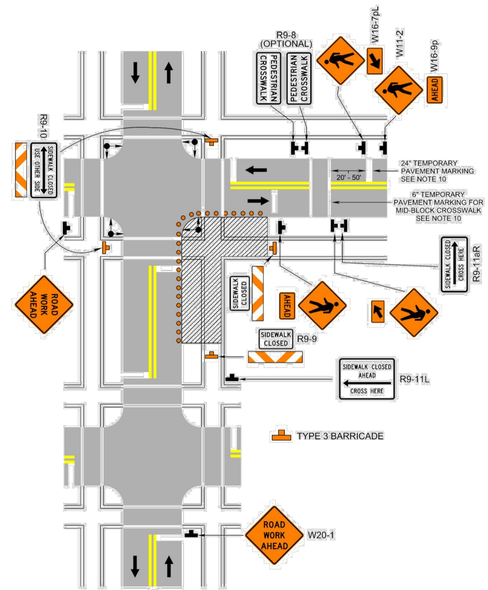
Standard:

9. **All sidewalk closures shall be closed with Type 3 Barricades.**

Support:

10. Refer to Sections 3B-16 through 3B-18 of the 2009 MUTCD for optional stop lines, yield lines and other related TTC devices that may be used to control vehicular traffic at midblock crosswalks.

Crosswalk Closure and Pedestrian Detour Operation
(Figure TTC-36.0)



Kimley»Horn
© 2013 KIMLEY-HORN AND ASSOCIATES, INC.
11400 COMMERCE PARK DRIVE, SUITE 400, RESTON, VA 20191
PHONE: 703-674-1300 FAX: 703-674-1350
WWW.KIMLEY-HORN.COM

COMMONWEALTH OF VIRGINIA
KYLE T. BULLINGER
Lic. No. 051017
4/24/2015
PROFESSIONAL ENGINEER

NO.	REVISIONS	DATE	BY

KHA PROJECT 110104020
DATE 4/23/15
SCALE N.T.S
DESIGNED BY: EJD
DRAWN BY: EJD
CHECKED BY: GDG

MOT STANDARDS

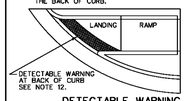
TAYLOR RUN/ JANNEY'S LANE
PREPARED FOR
CITY of ALEXANDRIA
ALEXANDRIA VIRGINIA

SHEET NUMBER
15

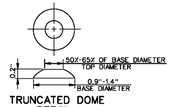
CG-12

GENERAL NOTES:

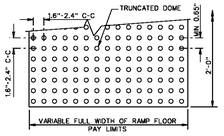
1. THE DETECTABLE WARNING SHALL BE PROVIDED BY TRUNCATED DOMES.
2. DETECTABLE WARNING TO BE CLASS A-3 CONCRETE (CLASS A-4 IF PRECAST) WITH SLIP RESISTANT INTEGRAL SURFACE COVERING THE FULL WIDTH OF THE RAMP FLOOR BY 2 FOOT IN LENGTH IN THE DIRECTION OF PEDESTRIAN TRAVEL. OTHER TYPES OF MATERIAL WITH THE TRUNCATED DOMES DETECTABLE WARNING MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
3. SLOPING SIDES OF CURB RAMP MAY BE POURED MONOLITHICALLY WITH RAMP FLOOR OR BY USING PERMISSIBLE CONSTRUCTION JOINT WITH REQUIRED BARS.
4. IF RAMP FLOOR IS PRECAST, HOLES MUST BE PROVIDED FOR DOWEL BARS SO THAT ADJOINING FLARED SIDES CAN BE CAST IN PLACE AFTER PLACEMENT OF PRECAST RAMP FLOOR. PRECAST CONCRETE SHALL BE CLASS A-4.
5. REQUIRED BARS ARE TO BE NO. 5 X 8' PLACED 1' CENTER TO CENTER ALONG BOTH SIDES OF THE RAMP FLOOR, MID-DEPTH OF RAMP FLOOR. MINIMUM CONCRETE COVER 1½".
6. CURB / CURB AND GUTTER SLOPE TRANSITIONS ADJACENT TO CURB RAMPS ARE INCLUDED IN PAYMENT FOR CURB / CURB AND GUTTER.
7. CURB RAMPS ARE TO BE LOCATED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THEY ARE TO BE PROVIDED AT INTERSECTIONS WHEREVER AN ACCESSIBLE ROUTE WITHIN THE RIGHT OF WAY OF A HIGHWAY FACILITY CROSSES A CURB REGARDLESS OF WHETHER SIDEWALK IS EXISTING, PROPOSED, OR NONEXISTENT. THEY MUST BE LOCATED WITHIN PEDESTRIAN CROSSWALKS AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER, AND SHOULD NOT BE LOCATED BEHIND VEHICLE STOP LINES, EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. ACCESSIBLE ROUTES PROVIDE A CONTINUOUS UNOBSTRUCTED, STABLE, FIRM AND SLIP RESISTANT PATH CONNECTING ALL ACCESSIBLE ELEMENTS OF A FACILITY THAT CAN BE APPROACHED, ENTERED AND USED BY PEDESTRIANS.
8. RAMPS MAY BE PLACED ON RADIAL OR TANGENTIAL SECTIONS PROVIDED THAT THE CURB OPENING IS PLACED WITHIN THE LIMITS OF THE CROSSWALK AND THAT THE SLOPE AT THE CONNECTION OF THE CURB OPENING IS PERPENDICULAR TO THE CURB.
9. TYPICAL CONCRETE SIDEWALK IS 4" THICK. WHEN THE ENTRANCE RADII CANNOT ACCOMMODATE THE TURNING REQUIREMENTS OF ANTICIPATED HEAVY TRUCK TRAFFIC, REFER TO STANDARDS CG-13, COMMERCIAL ENTRANCE (HEAVY TRUCK TRAFFIC) FOR CONCRETE DEPTH.
10. WHEN CURB RAMPS ARE USED IN CONJUNCTION WITH A SHARED USE PATH, THE MINIMUM WIDTH SHALL BE THE WIDTH OF THE SHARED USE PATH.
11. WHEN ONLY ONE CURB RAMP IS PROVIDED FOR TWO CROSSINGS (DIAGONAL), A 4' x 4' LANDING AREA SHALL BE PROVIDED TO MANEUVER A WHEELCHAIR INTO THE CROSSWALK WITHOUT GOING INTO THE TRAVELWAY. THIS 4' x 4' LANDING AREA MAY INCLUDE THE GUTTER PAN.
12. ALL CASES WHERE CURB RAMPS INTERSECT A RADIAL SECTION OF CURB AT ENTRANCES OR STREET CONNECTIONS, THE DETECTABLE WARNING SURFACE SHALL HAVE A FACTORY RADIUS OR BE FIELD MODIFIED AS RECOMMENDED BY THE MANUFACTURER TO MATCH THE BACK OF CURB.



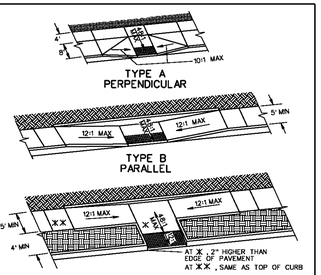
DETECTABLE WARNING INSTALLED ON A RADIUS



TRUNCATED DOME DETAIL

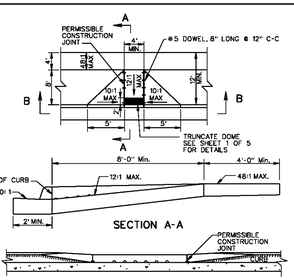


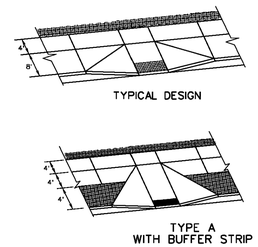
DETECTABLE WARNING DETAIL



VDOT ROAD AND BRIDGE STANDARDS		CG-12 DETECTABLE WARNING SURFACE (GENERAL NOTES) VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 1 OF 5	REVISION DATE		105
203.05	7/11		502

CG-12

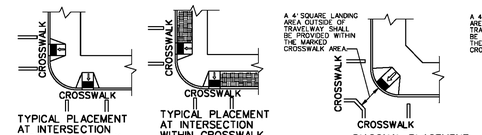




NOTES:

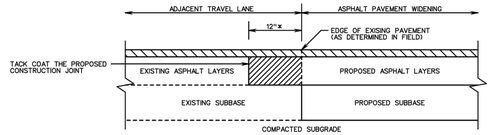
FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.

THIS DESIGN TO BE USED FOR CONSTRUCTION THAT INCORPORATES WIDER SIDEWALK, LANDING (4' WIDE) REQUIRED AT TOP OF CURB RAMP. MINIMUM CURB RAMP LENGTH 8 FEET FOR NEW CONSTRUCTION, 6 FEET FOR ALTERATIONS.



SPECIFICATION REFERENCE	CG-12 DETECTABLE WARNING SURFACE TYPE A (PERPENDICULAR) APPLICATION VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS	
105		REVISION DATE	SHEET 2 OF 5
502		7/11	203.06

WP-2



CONSTRUCTION JOINT DETAIL

REMOVE EXISTING ASPHALT LAYERS TO EXISTING SUBBASE AND REPLACE WITH PROPOSED ASPHALT WIDENING LAYERS

PROPOSED MINIMUM 1½ INCH THICK ASPHALT SURFACE COURSE (SEE NOTE 5)

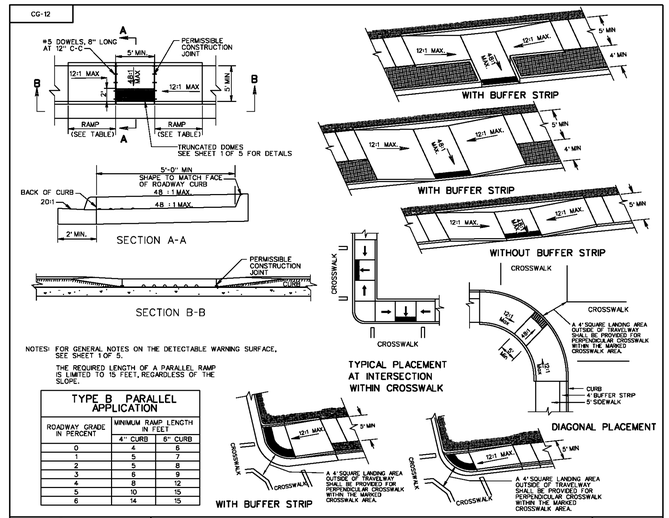
x MINIMUM 12 INCHES, OR GREATER AS NECESSARY TO ABUT THE FULL THICKNESS OF EXISTING ASPHALT LAYERS AS DETERMINED BY CORES (SEE NOTE 3)

NOTES:

1. ASPHALT PAVEMENT WIDENING SHALL HAVE A PAVEMENT DESIGN IN ACCORDANCE WITH CURRENT VDOT PROCEDURES AND BE APPROVED BY THE ENGINEER.
2. THE PAVEMENT DESIGN FOR ASPHALT PAVEMENT WIDENING SHALL MEET OR EXCEED THE DEPTHS AND TYPES OF THE LAYERS OF EXISTING PAVEMENT. SUBSURFACE DRAINAGE OF THE EXISTING AND PROPOSED PAVEMENT SHALL BE ADDRESSED IN THE PAVEMENT DESIGN.
3. A MINIMUM OF THREE CORES SHALL BE TAKEN ALONG THE CENTER OF THE ADJACENT TRAVEL LANE TO DETERMINE THE TYPE AND THICKNESS OF EXISTING PAVEMENT LAYERS. THESE CORES SHALL BE SPACED NO MORE THAN 500 FEET APART.
4. THE ADJACENT TRAVEL LANE SHALL BE MILLED A MINIMUM DEPTH OF 1½ INCHES AND REPLACED WITH AN ASPHALT SURFACE COURSE TO MATCH THE PROPOSED PAVEMENT WIDENING SURFACE COURSE, UNLESS WAIVED BY THE ENGINEER.
5. THE ENGINEER MAY REQUIRE THE MILLING DEPTH OF THE EXISTING PAVEMENT TO BE ADJUSTED TO ACHIEVE AN ACCEPTABLE PAVEMENT CROSS-SLOPE AND EFFECTIVE SURFACE DRAINAGE.
6. EXISTING PAVEMENT MARKINGS AND MARKERS WITHIN THE PROJECT LIMITS SHALL BE RESTORED SUBJECT TO THE APPROVAL OF THE ENGINEER.
7. FINAL TRANSVERSE PAVEMENT TIE-IN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 315.05(c) OF THE SPECIFICATIONS EXCEPT THAT ALL JOINTS AT TIE-IN LOCATIONS SHALL BE TESTED USING A 10 FOOT STRAIGHTEDGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 315.07(c) OF THE SPECIFICATIONS.

VDOT ROAD AND BRIDGE STANDARDS		PAVEMENT WIDENING VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 1 OF 1	REVISION DATE		315
303.02			

CG-12



NOTES: FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.

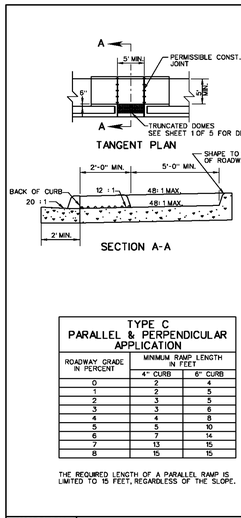
THE REQUIRED LENGTH OF A PARALLEL RAMP IS LIMITED TO 15 FEET, REGARDLESS OF THE SLOPE.

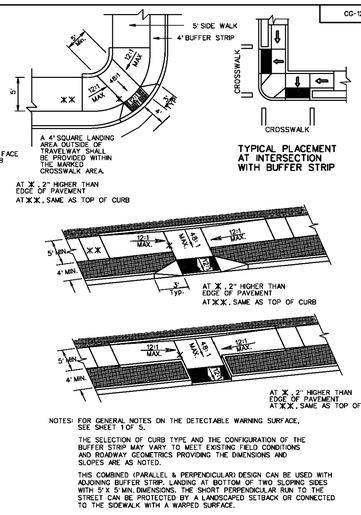
TYPE B PARALLEL APPLICATION

ROADWAY GRADE IN PERCENT	MINIMUM RAMP LENGTH IN FEET	
	4" CURB	6" CURB
0	4	6
1	5	7
2	5	8
3	6	9
4	8	12
5	10	15
6	14	15

VDOT ROAD AND BRIDGE STANDARDS		CG-12 DETECTABLE WARNING SURFACE TYPE B (PARALLEL) APPLICATION VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 3 OF 5	REVISION DATE		105
203.07	7/11		502

CG-12





TYPE C PARALLEL & PERPENDICULAR APPLICATION

ROADWAY GRADE IN PERCENT	MINIMUM RAMP LENGTH IN FEET	
	4" CURB	6" CURB
0	2	4
1	2	5
2	3	5
3	3	6
4	4	8
5	5	10
6	7	14
7	13	15
8	15	15

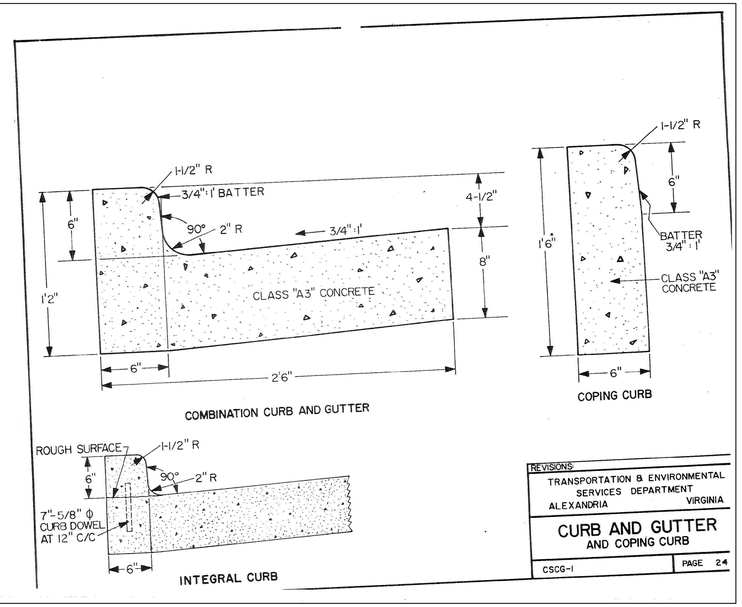
THE REQUIRED LENGTH OF A PARALLEL RAMP IS LIMITED TO 15 FEET, REGARDLESS OF THE SLOPE.

NOTES: FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.

THE SELECTION OF CURB TYPE AND THE CONFIGURATION OF THE BUFFER STRIP MAY VARY TO MEET EXISTING FIELD CONDITIONS AND ROADWAY GEOMETRICS PROVIDING THE DIMENSIONS AND SLOPES ARE AS NOTED.

THIS COMBINED (PARALLEL & PERPENDICULAR) DESIGN CAN BE USED WITH ADJOINING BUFFER STRIP LANDING AT BOTTOM OF TWO SLOPING SIDES WITH 5' X 5' MIN. DIMENSIONS. THE SHORT PERPENDICULAR RUN TO THE STREET CAN BE PROTECTED BY A LANDSCAPED SETBACK OR CONNECTED TO THE SIDEWALK WITH A WARPED SURFACE.

SPECIFICATION REFERENCE	CG-12 DETECTABLE WARNING SURFACE TYPE C (PARALLEL & PERPENDICULAR) APPLICATION VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS	
105		REVISION DATE	SHEET 4 OF 5
502		7/11	203.08



REVISIONS:

TRANSPORTATION & ENVIRONMENTAL SERVICES DEPARTMENT
ALEXANDRIA VIRGINIA

CURB AND GUTTER AND COPING CURB

CSCG-1 | PAGE 24

NO.	REVISIONS	DATE	BY

Kimley»Horn

© 2013 KIMLEY-HORN AND ASSOCIATES, INC.
11400 COMMERCE PARK DRIVE, SUITE 400, RESTON, VA 20191
PHONE: 703-674-1300 FAX: 703-674-1350
WWW.KIMLEY-HORN.COM

COMMONWEALTH OF VIRGINIA
KYLE T. BOLLINGER
Lic. No. 051017
4/24/2015
PROFESSIONAL ENGINEER

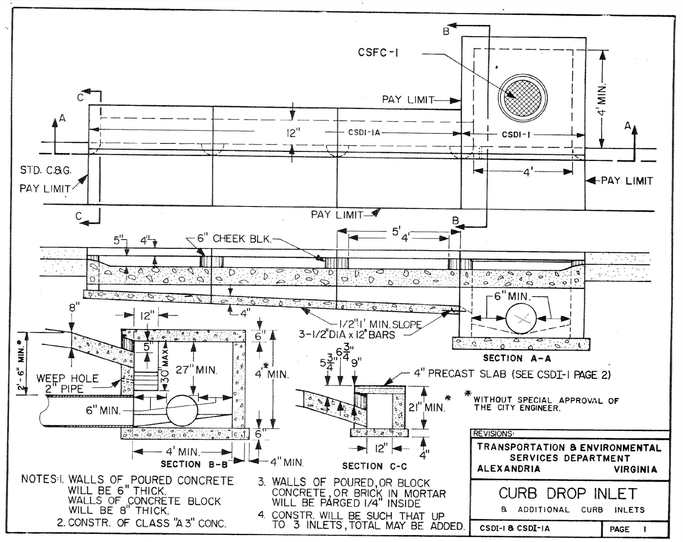
KHA PROJECT 110104020
DATE 4/23/15
SCALE N.T.S.
DESIGNED BY: EJD
DRAWN BY: EJD
CHECKED BY: GDG

STANDARD DETAILS

TAYLOR RUN/ JANNEY'S LANE

PREPARED FOR
CITY of ALEXANDRIA VIRGINIA
ALEXANDRIA

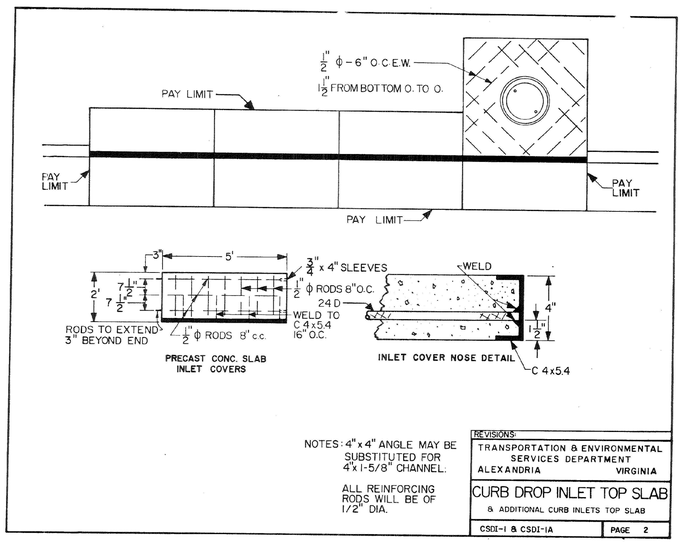
SHEET NUMBER
16



REVISIONS:
TRANSPORTATION & ENVIRONMENTAL SERVICES DEPARTMENT
ALEXANDRIA VIRGINIA

CURB DROP INLET
& ADDITIONAL CURB INLETS

CSDI-1 & CSDI-1A | PAGE 1



NOTES: 4" x 4" ANGLE MAY BE SUBSTITUTED FOR 4" x 1-5/8" CHANNEL.

ALL REINFORCING RODS WILL BE OF 1/2" DIA.

REVISIONS:
TRANSPORTATION & ENVIRONMENTAL SERVICES DEPARTMENT
ALEXANDRIA VIRGINIA

CURB DROP INLET TOP SLAB
& ADDITIONAL CURB INLETS TOP SLAB

CSDI-1 & CSDI-1A | PAGE 2

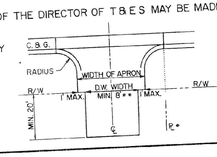
CLASS OF STREET	LOCAL				COLLECTOR				ARTERIAL	
	MINOR		MAJOR		RESIDENTIAL		PRIMARY			
TYPE OF LANE AGAINST CURB	W/ CURB PARK LANE	W/O CURB PARK LANE	W/ CURB PARK LANE	W/O CURB PARK LANE	W/ CURB PARK LANE	W/O CURB PARK LANE	W/ CURB PARK LANE	W/O CURB PARK LANE	W/ CURB PARK LANE	W/O CURB PARK LANE
MIN. WIDTH FT.**	8	9	10	12	9	10	10	12	12	16
MIN. RADIUS FT.*	3	5	5	7	5	7	5	7	7	10

* RADII SHALL BE IN FRONT OF THE PROPERTY SERVED BY THE DRIVEWAY WHENEVER POSSIBLE. JOINT DRIVEWAY MAY BE APPROVED, BUT MIN. WIDTH OF APRON IS REQUIRED ON EACH SIDE OF LOT LINE.

** WIDTH OF DRIVEWAY ON PROPERTY AT END OF APRON MAY NOT BE LESS THAN 8', OR 2' LESS THAN THE ABOVE WIDTH WHICHEVER IS GREATER. WHERE EVEN FURTHER REDUCTION IN WIDTH OF DRIVEWAY IS DESIRED ON LONG DRIVEWAYS A 10 TO 1 MIN. TRANSITION IN WIDTH MUST BE USED TO REACH SAID REDUCED WIDTH.

NOTE: UPON WRITTEN REQUEST TO THE DIRECTOR OF T&ES, VARIANCES FROM THE MINIMUM DRIVEWAY STANDARDS MAY BE GRANTED PROVIDED THAT STRICT APPLICATION OF THE REQUIREMENTS WILL EFFECTIVELY PROHIBIT OR UNREASONABLY RESTRICT THE USE OF THE PROPERTY; AND, PROVIDED THAT SUCH VARIANCE WILL NOT BE OF SUBSTANTIAL DETRIMENT TO ADJACENT PROPERTY. APPLICANT TO NOTIFY ADJACENT PROPERTY OWNERS OF DRIVEWAY REQUEST FOR ALL CURB CUTS AT LEAST 14 DAYS IN ADVANCE OF APPROVAL BY T&ES.

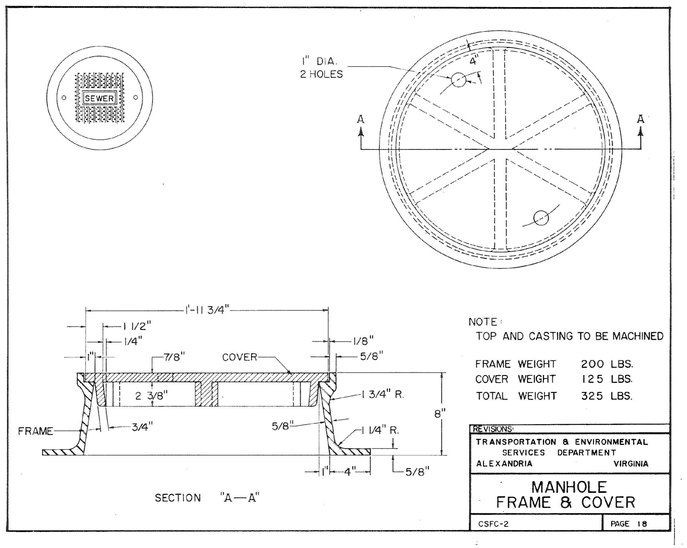
APPEALS FROM DECISIONS OF THE DIRECTOR OF T&ES MAY BE MADE IN WRITING TO THE TRAFFIC & PARKING BOARD BY THE APPLICANT OR AN ADJACENT PROPERTY OWNER OF THE PROPOSED DRIVEWAY.



REVISIONS:
TRANSPORTATION & ENVIRONMENTAL SERVICES DEPARTMENT
ALEXANDRIA VIRGINIA

RESIDENTIAL CURB CUTS MINIMUM STANDARDS

CSER-1 | PAGE 33



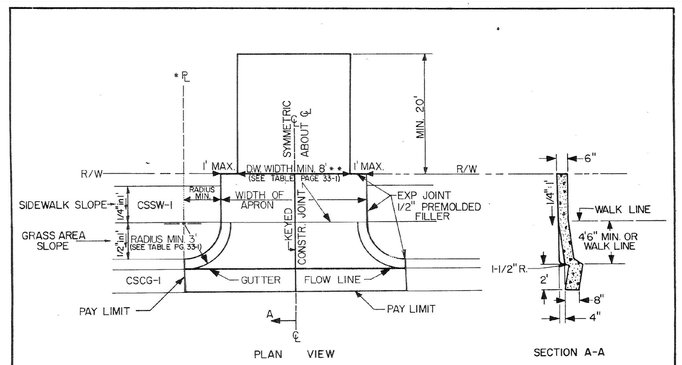
NOTE:
TOP AND CASTING TO BE MACHINED

FRAME WEIGHT	200 LBS.
COVER WEIGHT	125 LBS.
TOTAL WEIGHT	325 LBS.

REVISIONS:
TRANSPORTATION & ENVIRONMENTAL SERVICES DEPARTMENT
ALEXANDRIA VIRGINIA

MANHOLE FRAME & COVER

CSFC-2 | PAGE 18

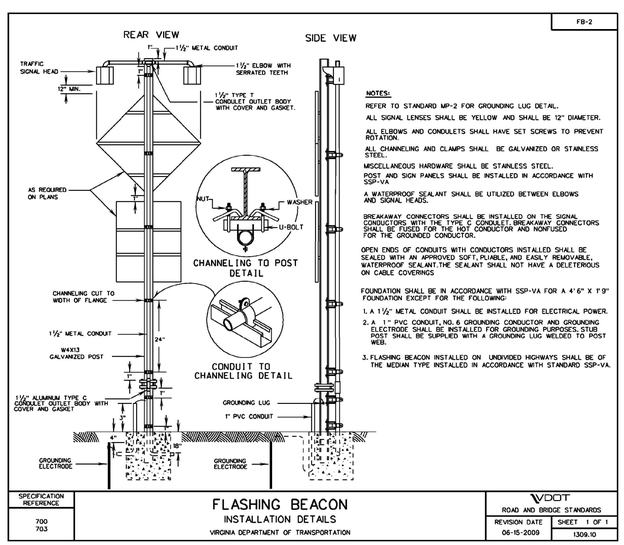


NOTES: 1. DEPRESS SLAB 1-1/2" AT ℄, AND BLEND INTO FLOW LINE.
2. PAY QUANTITIES SQ. YD. COMPLETE.
3. CLASS "A3" CONCRETE
4. PROVIDE INTERMEDIATE CONTRACTION JOINTS AT 1/4 OF ENTRANCE WIDTH, IF ENTRANCE EXCEEDS 12'.

REVISIONS:
TRANSPORTATION & ENVIRONMENTAL SERVICES DEPARTMENT
ALEXANDRIA VIRGINIA

ENTRANCE
RESIDENTIAL RAMP

CSER-1 | PAGE 33



SPECIFICATION REFERENCE
700
703

FLASHING BEACON INSTALLATION DETAILS
VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT
ROAD AND BRIDGE STANDARDS

REVISION DATE	SHEET 1 OF 1
06-15-2009	1309.10

Kimley»Horn
© 2013 KIMLEY-HORN ASSOCIATES, INC.
11400 COMMERCE PARK DRIVE, SUITE 400, RESTON, VA 20191
PHONE: 703-674-1300 FAX: 703-674-1350
WWW.KIMLEY-HORN.COM

COMMONWEALTH OF VIRGINIA
KYLE T. BOLLINGER
Lic. No. 051017
4/24/2015
PROFESSIONAL ENGINEER

KHA PROJECT 110104020		
DATE 4/23/15	SCALE	N.T.S
	DESIGNED BY:	EJD
	DRAWN BY:	EJD
	CHECKED BY:	CDG

NO.	REVISIONS	DATE	BY

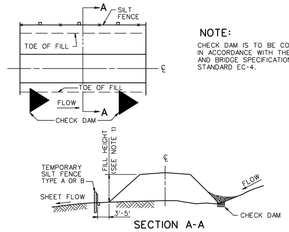
STANDARD DETAILS

TAYLOR RUN/ JANNEY'S LANE
PREPARED FOR
CITY of ALEXANDRIA
VIRGINIA
ALEXANDRIA

SHEET NUMBER
17

TYPICAL DETAIL FOR TEMPORARY SILT FENCE/CHECK DAM AT TOE OF FILL

EC-5

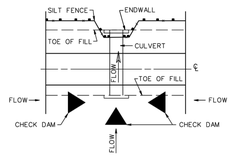


SECTION A-A

NOTE:
CHECK DAM IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS, AND STANDARD EC-4.

TYPICAL DETAIL FOR TEMPORARY SILT FENCE/CHECK DAM AT CULVERT

EC-5



NOTE:
CHECK DAM IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS, AND STANDARD EC-4.

NOTES FOR SILT FENCE TYPE A & B:

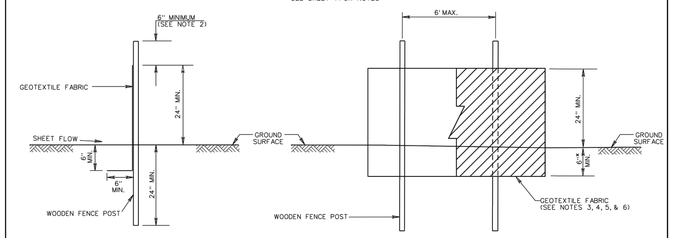
1. USE OF TYPE A SILT FENCE IS LIMITED TO A FILL HEIGHT OF 20 FEET OR LESS. TYPE B SILT FENCE MUST BE USED WHERE THE FILL HEIGHT EXCEEDS 20 FEET.
2. ALL POSTS SHALL BE DRIVEN 24" MIN. INTO THE GROUND AND SHALL EXTEND 6" ABOVE THE FILTER FABRIC (TYPE A) OR WIRE FENCE (TYPE B). WOODEN POSTS SHALL BE OAK AND HAVE MIN. DIMENSIONS OF 2" BY 2". STEEL POSTS SHALL HAVE A MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT.
3. GEOTEXTILE FABRIC SHALL BE EMBEDDED 12" INTO THE GROUND (6" VERTICALLY AND 6" HORIZONTALLY ALONG THE BOTTOM OF TRENCH) AS SHOWN IN DETAILS A(2) & B(2) ON SHEETS 2 AND 3.
4. SLICING IS AN APPROVED ALTERNATIVE TO TRENCHING FOR ANCHORING THE GEOTEXTILE FABRIC INTO THE GROUND SHOWN IN DETAILS A(2) & B(2) ON SHEETS 2 AND 3. SLICING SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SECTION 303 OF THE ROAD AND BRIDGE SPECIFICATIONS.
5. WHEN TWO SEPARATE SECTIONS OF GEOTEXTILE FABRIC ADJOIN EACH OTHER, THEY SHALL OVERLAP BY 6" AND BE DOUBLE FOLDED.
6. GEOTEXTILE FABRIC SHALL BE FASTENED SECURELY TO THE POSTS (TYPE A & B) AND WIRE FENCE (TYPE B ONLY). THE ATTACHMENTS TO THE WIRE FENCE SHALL BE MADE WITH TIES SPACED EVERY 24" HORIZONTALLY AT BOTH THE TOP AND VERTICAL MIDPOINT OF THE GEOTEXTILE FABRIC.
7. WIRE FENCE (TYPE B ONLY) SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES AND EMBEDDED A MINIMUM OF 2" IN THE GROUND.
8. WIRE FENCE (TYPE B ONLY) SHALL BE A MINIMUM OF 14 GAUGE WELDED WIRE WITH A MESH SPACING OF 2" BY 4". ALTERNATIVE MESH SPACING MAY BE APPROVED BY THE ENGINEER, BUT MUST BE NO MORE THAN 6" BY 6".
9. FOR AREAS REQUIRING TYPE B SILT FENCE, A MINIMUM LENGTH OF 100 LINEAR FEET SHALL BE INSTALLED.
10. AS AN ALTERNATIVE TO UTILIZING TYPE B SILT FENCE, TWO ROWS OF TYPE A SILT FENCE MAY BE PLACED PARALLEL TO EACH OTHER WITH 3' TO 5' BETWEEN THE TWO ROWS. THIS OPTION MAY BE USED AT ALL LOCATIONS SPECIFYING TYPE B SILT FENCE UNLESS OTHERWISE PROHIBITED BY THE PLANS. SEE DETAIL ON SHEET 3 (BOTTOM RIGHT).
11. MATERIALS FOR ALL SILT FENCE SHALL CONFORM TO THE REQUIREMENTS OF SECTION 242 OF THE VDOT ROAD & BRIDGE SPECIFICATIONS.

SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.	VDOT ROAD AND BRIDGE STANDARDS	
107 242 245 303	TEMPORARY SILT BARRIERS SILT FENCE (TYPE A & B) AND BRUSH BARRIER VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE 08/14	SHEET 1 OF 4 113.07

SILT FENCE TYPE A

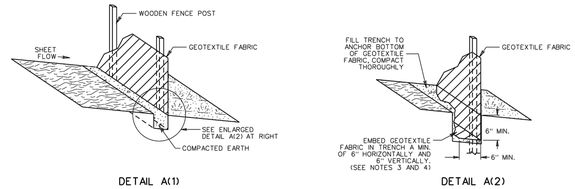
EC-5

SEE SHEET 1 FOR NOTES



SECTION VIEW

PROFILE VIEW



DETAIL A(1)

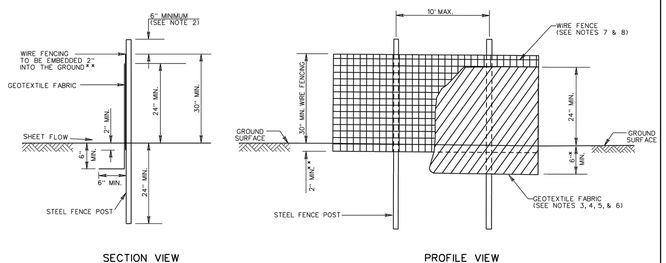
DETAIL A(2)

VDOT ROAD AND BRIDGE STANDARDS	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.	SPECIFICATION REFERENCE
SHEET 2 OF 4 113.07A	TEMPORARY SILT BARRIERS SILT FENCE (TYPE A & B) AND BRUSH BARRIER VIRGINIA DEPARTMENT OF TRANSPORTATION	107 242 245 303
REVISION DATE 08/14		

SILT FENCE TYPE B

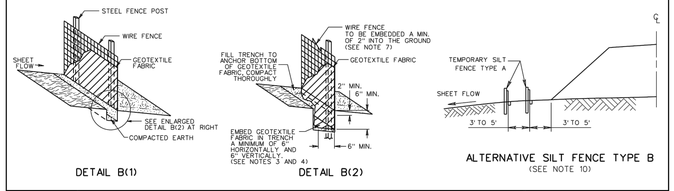
EC-5

SEE SHEET 1 FOR NOTES



SECTION VIEW

PROFILE VIEW



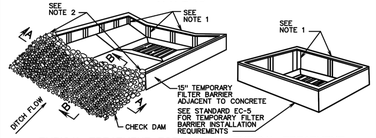
DETAIL B(1)

DETAIL B(2)

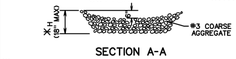
ALTERNATIVE SILT FENCE TYPE B
(SEE NOTE 10)

SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.	VDOT ROAD AND BRIDGE STANDARDS	
107 242 245 303	TEMPORARY SILT BARRIERS SILT FENCE (TYPE A & B) AND BRUSH BARRIER VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE 08/14	SHEET 3 OF 4 113.07B

INLET PROTECTION (TYPE A)

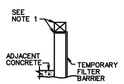


TYPICAL TREATMENT FOR DROP INLET WITH CONCRETE GUTTER

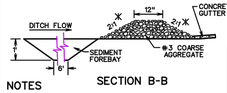


SECTION A-A

TYPICAL TREATMENT FOR DROP INLET WITHOUT CONCRETE GUTTER



* IF CHECK DAM IS LOCATED INSIDE CLEAR ZONE AND ADJACENT TO A TRAVELWAY, SLOPE FACING ON COMING TRAFFIC IS TO BE 6:1 AND MAXIMUM H IS TO BE 12".



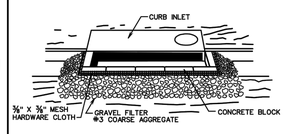
SECTION B-B

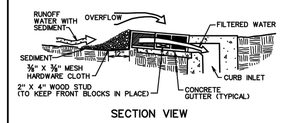
NOTES

1. POSTS AND TOP RAIL SHALL BE A NOMINAL 2½" X 2½" OR A 3" DIA. NO. 2 SOUTHERN PINE, A NOMINAL 2" X 2" OAK, OR STEEL HAVING A MIN. WEIGHT OF 1.25 LBS. PER LINEAR FOOT AND A MIN. LENGTH OF 5' FOR TEMPORARY SILT FENCES.
2. END OF FILTER BARRIER TO BE EMBEDDED INTO AGGREGATE.
3. IF A DROP INLET IS LOCATED IN A SAG IN THE DITCH GRADE, A CHECK DAM IS REQUIRED FOR EACH SIDE OF THE INLET THAT RECEIVES DITCH FLOW.
4. WHERE DRAINAGE AREAS EXCEED ONE ACRE OR DITCH GRADE EXCEEDS 3%, A TEMPORARY SEDIMENT FOREBAY SHALL BE INSTALLED WITH MINIMUM DIMENSIONS OF 12" DEPTH, 2' WIDTH AND 6' LENGTH.

INLET PROTECTION (TYPE B)

EC-6





SECTION VIEW

SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.

NOTE:
GEOTEXTILE PRODUCTS DESIGNED TO BE INSERTED INTO GRATED DROP INLETS OR DESIGNED TO COVER THE SLOTS OF SLOT DROP INLETS, THAT HAVE BEEN APPROVED FOR USE ON VDOT PROJECTS AND ARE FOUND ON VDOT'S SPEL LIST, MAY BE SUBSTITUTED FOR THE DROP INLET PROTECTION DEVICES DETAILED HEREON.

SPECIFICATION REFERENCE	INLET PROTECTION (TYPE A AND B)	VDOT ROAD AND BRIDGE STANDARDS	
107 242 303	VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE	SHEET 1 OF 2 113.09

NO.	REVISIONS	DATE	BY

Kimley»Horn
© 2013 KIMLEY-HORN AND ASSOCIATES, INC.
11400 COMMERCE PARK DRIVE, SUITE 400, RESTON, VA 20191
PHONE: 703-674-1300 FAX: 703-674-1350
WWW.KIMLEY-HORN.COM

COMMONWEALTH OF VIRGINIA
KYLE T. BOLLINGER
Lic. No. 051017
4/24/2015
PROFESSIONAL ENGINEER

KHA PROJECT	SCALE	DESIGNED BY:	DRAWN BY:	CHECKED BY:
110104020	N.T.S.	E.J.D.	E.J.D.	G.D.C.
DATE 4/23/15				

EROSION CONTROL STANDARDS

TAYLOR RUN/ JANNEY'S LANE

PREPARED FOR
CITY of ALEXANDRIA
ALEXANDRIA VIRGINIA

SHEET NUMBER
18